UNIVERSITY OF PENNSYLVANIA

LOCAL UNITS FOR EDUCATIONAL ADMINISTRATION:

Studies in Selected Counties in Pennsylvania and Maryland

GEORGE RIGHTER CRESSMAN

A THESIS

IN EDUCATION

PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

PHILADELPHIA
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FOREWORD

It is impossible for the author to express his appreciation to all of those persons whose cooperation has made this investigation possible. He desires to acknowledge his deep indebtedness especially to Dr. LeRoy A. King of the University of Pennsylvania, whose guidance in the formulation of the problem and during the entire course of the study has been invaluable, and to the kindly and helpful criticism of Dr. Francis M. Garver and Dr. Arthur J. Jones of the same institution. Very many worth while suggestions have also been received from Dr. James C. Miller and Dr. F. Herrick Conners of the department of Educational Administration and Elementary Education respectively at that University

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Various members of the State Department of Public Instruction in Pennsylvania and of the State Department of Education in Maryland have been of inestimable help. Special mention is made of the assistance rendered by Miss Bessie C. Stern, Statistician in the Maryland State Department and by Mr. Jonas E. Wagner, Director of the Bureau of Statistical Research in the Department of Public Instruction at Harrisburg.

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TABLE OF CONTENTS

Chapter		*Page*
I	Introduction	1
II	The Characteristics of the Counties Selected	11
III	Present Status of the Educational Organization in Pennsylvania and Maryland	30
IV	Financial Status—Ability, Effort and Need of the Units of Administration	71
V	Expenditures	114
VI	Administrative and Supervisory Control	155
VII	Taxation and Assessment	180
VIII	Other Factual Data Related to the Form of Administrative Organization in Each State	203
IX	Findings and Conclusions	227
	Bibliography	241
	Appendix	245
	Index	266

LIST OF TABLES

Table		*Page*
I.	The Selected Counties	6
II.	Data Pertaining to Counties Selected in Pennsylvania	16
III.	Data Pertaining to Counties Selected in Maryland	17
IV.	Rural and Urban Distribution of the Population in the Selected Counties and in Each State as a Whole	26
V.	Distribution of the Farm and Non-Farm Characteristics of the Rural Population in the Selected Counties and in Each State as a Whole	27
VI.	Racial Composition of the Population in the Selected Counties and in Each State as a Whole	28
VII.	Classification of School Districts in Pennsylvania as of January 1, 1931	42
VIII.	Development of Joint Schools in the Selected Pennsylvania Counties and in the State as a Whole	46
IX.	Classification of Minimum Salaries of County Superintendents in Pennsylvania	61
X.	Distribution of White Supervising and Helping Teachers Required in the Maryland Counties	63
XI.	Number of High Schools in the Selected Pennsylvania Counties for the Year Ending July, 1931	64
XII.	Number of Approved High Schools in the Selected Maryland Counties for the Year Ending July 31, 1930	66
XIII.	Ability of the Districts of Adams County, Pennsylvania, to Support Education	81
XIV.	Ability of the Districts of Bradford County, Pennsylvania, to Support Education	82
XV.	Ability of the Districts of Chester County, Pennsylvania, to Support Education	84
XVI.	Ability of the Districts of Clearfield County, Pennsylvania, to Support Education	86
XVII.	Ability of the Districts of Crawford County, Pennsylvania, to Support Education	88
XVIII.	Ability of the Districts of Greene County, Pennsylvania, to Support Education	90

Table		*Page*
XIX.	Ability of the Districts of Pike County, Pennsylvania, to Support Education	91
XX.	Ability of the Selected Counties to Support Education as Conditioned by the Effects of Population	92
XXI.	Variations in Expenditures per Pupil Belonging in the Selected Counties in Pennsylvania and Maryland for the Year 1929-1930	96
XXII.	Relationship between Receipts from Local Taxation for School Purposes, and Expenditures for Current Expenses in the Selected Counties of Pennsylvania and Maryland for the Year 1929-1930	97
XXIII.	Ratios of Receipts from Local Taxation to Actual Expenditures for Current Expenses in the Selected Pennsylvania Counties for the Year 1929-1930	98
XXIV.	Rank of the Selected Counties in Ability as Measured by Clark's Formula, and Rank in Effort as Measured by the Relationship of Receipts from Local Taxation to Expenditures for Current Expenses for the Year 1929-1930	99
XXV.	Distribution of Corrected School Tax Rates in the Selected Pennsylvania Counties, 1929-1930	101
XXVI.	Distribution of Levied School Tax Rates in the Selected Pennsylvania Counties	105
XXVII.	Per Cent Distribution of Expenditures for Current Expense, Debt Service and Capital Outlay in the Selected Counties for the Year 1929-1930	116
XXVIII.	Per Cent Distribution of Expenditures for the Items of Current Expense in the Selected Pennsylvania Counties for the Year 1929-1930	118
XXIX.	Per Cent Distribution of Expenditures for the Items of Current Expense in the Selected Maryland Counties for the Year 1929-1930	119
XXX.	Per Cent Distribution of the Expenditures for the Items of Current Expense for which a Separate Accounting is kept for White and Colored Schools in the Selected Maryland Counties for the Year 1929-1930	122
XXXI.	Non-Resident Tuition Paid to Adjoining Counties and States by the Selected Maryland Counties for the Year 1929-1930	123

Table		*Page*
XXXII.	Analysis of Non-Resident High School Tuition Costs and Equivalent Millages in Relation to Total Millages for all School Purposes for the Districts of Adams County, Pennsylvania, 1929-1930	125
XXXIII.	Analysis of Non-Resident High School Tuition Costs and Equivalent Millages in Relation to Total Millages for all School Purposes for the Districts of Bradford County, Pennsylvania, 1929-1930	126
XXXIV.	Analysis of Non-Resident High School Tuition Costs and Equivalent Millages in Relation to Total Millages for all School Purposes for the Districts of Chester County, Pennsylvania, 1929-1930	128
XXXV.	Analysis of Non-Resident High School Tuition Costs and Equivalent Millages in Relation to Total Millages for all School Purposes for the Districts of Clearfield County, Pennsylvania, 1929-1930	130
XXXVI.	Analysis of Non-Resident High School Tuition Costs and Equivalent Millages in Relation to Total Millages for all School Purposes for the Districts of Crawford County, Pennsylvania, 1929-1930	132
XXXVII.	Analysis of Non-Resident High School Tuition Costs and Equivalent Millages in Relation to Total Millages for all School Purposes for the Districts of Greene County, Pennsylvania, 1929-1930	134
XXXVIII.	Analysis of Non-Resident High School Tuition Costs and Equivalent Millages in Relation to Total Millages for all School Purposes for the Districts of Pike County, Pennsylvania, 1929-1930	135
XXXIX.	Data Pertaining to the Transportation of Pupils in Pennsylvania and Maryland, 1927-1928	139
XL.	Number of Pupils Transported and the Costs of Transportation in the Selected Pennsylvania Counties for the Year Ending July 7, 1930	140
XLI.	Number of Pupils Transported and the Costs of Transportation in the Selected Maryland Counties for the Year Ending July 31, 1930	141
XLII.	Average Number of Days in the Term in the Selected Counties, 1929-1930	143

Table		*Page*
XLIII.	Distances Traveled Daily to High School by Non-Resident Pupils in Chester County, Pennsylvania, November, 1930..	150
XLIV.	Means of Transportation to High School Used by Non-Resident Pupils in Chester County, Pennsylvania, November, 1930	150
XLV.	Equivalent Weekly Expense to Non-Resident High School Pupils in Chester County, Pennsylvania, November, 1930.	151
XLVI.	Number of Teachers under the Direct Supervision of the County Supervisory Officers in the Selected Counties of Pennsylvania and Maryland for the Year 1929-1930	166
XLVII.	Educational Qualifications of County Superintendents in the Selected Counties in Pennsylvania and Maryland for the Year 1929-1930	167
XLVIII.	Educational Qualifications of Assistant County Superintendents and of Supervising and Helping Teachers in the Selected Counties in Pennsylvania and Maryland for the Year 1929-1930	168
XLIX.	Number of County Superintendents in the Selected Counties with Annual Salaries as Indicated for the Year 1929-1930..	172
L.	Number of Assistant Superintendents, Supervising and Helping Teachers in the Selected Counties with Annual Salaries as Indicated for the Year 1929-1930	173
LI.	Costs of Administration and Supervision per Pupil and per Teacher in the Selected Pennsylvania Counties for the Year 1929-1930. Based upon the Salaries and Expenses of the County and Assistant County Superintendents	175
LII.	Costs of Administration and Supervision per Pupil and per Teacher in the Selected Maryland Counties for the Year 1929-1930 Based upon the Salaries of the County and Assistant County Superintendents and the Supervising and Helping Teachers	175
LIII.	Distribution of Local Tax Rates Levied in the Selected Pennsylvania Counties, 1929-1930	190
LIV.	Distribution of the Corrected Local Tax Rates in the Selected Pennsylvania Counties, 1929-1930	191
LV.	Tax Rates Levied in Mills on the Dollar on the Full Taxable Basis for County and State Purposes in the Selected Maryland Counties Covering the School Year, 1929-1930	196

Table *Page*

LVI. Reduction in the Number of White One-Teacher Elementary Schools in the Selected Maryland Counties and in the State as a Whole During the Decade 1920-1929 208

LVII. Reduction in the Number of One-Teacher Elementary Schools in the Selected Counties in Pennsylvania and Maryland During the Decade 1920-1929 209

LVIII. Number and Per Cent of 1929 White Elementary School Graduates Entering Secondary Schools in the Fall of 1929 in the Selected Maryland Counties 210

LIX. Number and Per Cent of Graduates of Elementary Schools Entering Secondary Schools in Fall of 1929 or 1930 in the Selected Pennsylvania Counties 212

LX. Possible Cost Eliminations in the Selected Pennsylvania Counties Should County Unit Control Be Adopted 217

LXI. Taxation Necessary to Support the Present Educational Program in Chester County, Pennsylvania, on the County Unit Basis 219

LXII. Showing Tax Rates Necessary to Support the Present Educational Program on a County Tax Basis in the Selected Pennsylvania Counties 221

LXIII. Showing Additional Millages Necessary after First Year for Addition to Tax Rates Given in Table LXII to Produce Amounts Equivalent to Balances Outstanding for 1929-1930 222

LXIV. Ranges of Indices of Ability of the Districts in the Selected Pennsylvania Counties to Support Education, Based Upon the Application of Clark's Formula and the Ability of the County as a Whole as 1.00 230

LIST OF CHARTS

Chart *Page*

I. Map of Pennsylvania Showing Counties Used in Study 14

II. Map of Maryland Showing Counties Used in Study 15

III. Relation of Ability and Effort to Support Education in the Selected Pennsylvania Counties, 1929-1930 102

IV. Relation of Ability and Effort to Support Education in the Selected Maryland Counties, 1929-1930 103

CHAPTER I

INTRODUCTION

The Background

As early as 1913, there was an increasing interest being manifested in the problem of securing a more efficient type of administrative unit for the support and control of public education in Pennsylvania. At that time, a committee of five was appointed by the State Education Association to study the whole question of rural schools.[1] This committee was enlarged to twelve by Dr. Schaeffer, then State Superintendent of Public Instruction, and reported at the meeting of the Association the following year, recommending the adoption of a larger unit of school administration, "the county where feasible."[2]

In 1916, Mr. A. S. Cook, then County Superintendent of Baltimore County, Maryland, spoke at two different and largely attended state meetings[3] upon the various aspects of the county as the desired unit of administration. These were but indications of a growing discontent with the district, or more strictly speaking, the township. borough or city district as the unit of school administration and support.

Much of this same feeling has also been evident upon a national basis, as is shown in part by the following:[4]

> "The district unit, which in the early days was the only kind of organization possible, has largely outlived its usefulness as a unit of organization and administration. Unquestionably, it is the cause of many of the inefficient and ineffective schools to be found in many

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[1]Shaw, Robert C., "The Policy of the State Department of Public Instruction Relative to a Larger Unit of Administration for Pennsylvania", Schoolmen's Week Proceedings, Vol. XII, 1925, pp. 59-63, University of Pennsylvania, Phila., Pa.

[2]Proceedings of the Pennsylvania State Education Association, 1914, p. 24.

[3]Cook, Albert S., "Supervising as an Essential Feature of a County School System", Schoolmen's Week Proceedings, April, 1916, pp. 175-182.
Also, "The County as a Unit of Organization and Administration", Proceedings of Pennsylvania State Education Association, 1916, pp. 32-34.

[4]Foght, H. W., "Rural Education", U. S. Bureau of Education, Bulletin No. 7, 1919, p. 5.

sections. In the States organized on the district basis, the prevailing tendency is toward the county unit, which, if rightly organized, offers a large enough area for the introduction of equable taxation and equalized educational opportunities."

In a still more recent publication of the Bureau of Education is found the statement[5] that "The county as a source of school support is increasing in the country as a whole."

What is probably the most recent analysis of present status as regards the county unit is found in a study by Leech.[6] Accepting the definition that the county unit is the term applied to systems in which the public schools in the county (city schools usually excepted) are organized as a single system under one board of education and supported largely by county funds, he made the following classification:

States with county unit plans:
Maryland, Kentucky, Tennessee, North Carolina, Alabama, Georgia, Florida, New Mexico, Utah, Virginia, Louisana.

States with semi-county unit plans:
Ohio.

States with optional county unit plans:
Minnesota, Montana, Oregon, Texas.

States with no county organization beyond employment of a county superintendent of schools:
Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, Delaware, Pennsylvania, New Jersey, West Virginia, South Carolina, Michigan, Indiana, Wisconsin, Illinois, Iowa, Missouri, Arkansas, Mississippi, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Wyoming, Colorado, Idaho, Washington, Nevada, Arizona, California.

It should be noted, however, in this connection, that while Delaware is listed with the last named group, it is, in reality, an example of a close approach to a system in which the state is the sole unit for the control and administration of the public schools.

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[5]Klein, A. J., Deffenbaugh, W. S., Covert, T. and Lathrop, E. A., "Educational Surveys", U. S. Bureau of Education, Bulletin No. 11, 1928, p. 61.

[6]Leech, Carl G., "The County Unit in School Administration, Its Present Status in the United States", American School Board Journal, Vol. 81, No. 2, p. 39, August, 1930.

A number of state survey reports have been made in recent years and have dealt more or less specifically with existing types of units. Since 1920, the following states have published survey reports:[7]

> Florida, Indiana, Kansas, Mississippi, Missouri, New Jersey, New York, North Carolina, Texas, Utah, Virginia and West Virginia.

Tabulating the results of these surveys, Deffenbaugh indicates that eight of them have recommended some form of county control,[8] three some form of community unit and one a modified type of district. Very recently, the reports of the Wisconsin Legislative Commission and the Arkansas survey have been published. The former recommended the adoption of the "pure county unit",[9] while the latter suggested that the number of school districts in the State be reduced from 4,200 to 307 consolidated districts."[10]

There is no unanimity of opinion, however, on the ultimately desirable unit. On the other hand, there seems to be much agreement on the fact that no unit is the most desirable for all states. Opinion upon this matter is well expressed by the following:[11]

> "Indeed it is unlikely that any one plan could be applied with uniformly excellent results to all states and communities. Each state has its own problem; and after learning all that it can from the comparative experiences of other states, each state must work out its own solution, in the light of sound principles and an analysis of local needs and conditions.
>
> "The following are the principal larger units in use or proposed at present; the consolidated school district, the superintendency union, the township unit, the community unit, and the county unit."

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[7]Deffenbaugh, W. S., "School Administration in State Educational Survey Reports", U. S. Office of Education, Bulletin No. 35, 1930, p. 33.

[8]Ibid., p. 15.

[9]"A Plan for Reorganizing Wisconsin's System of Education", Report of the Wisconsin's Interim Legislative Commission on Education, 1931, p. 208.

[10]Dawson, Little and Hirsh, "Financial and Administrative Needs of the Public Schools of Arkansas", Vol. 1, Nov., 1930.

[11]"The Outlook for Rural Education", Research Bulletin of the National Education Association, Vol. IX, No. 4, September, 1931, p. 238.

Butterworth[12] has listed what he considers the factors to be taken into account in the determination of the best type of local unit. They are as follows:

1. Ability of the local unit to support the desired educational program.
2. The number of pupils enrolled must be sufficient to provide adequate curricula at reasonable cost.
3. The stage of the development in cooperation for social ends is likely to be an important consideration in determining the type of local unit.
4. The quality of leadership available in developing an interest in educational affairs will be an important factor.

He further proposes that "studies dealing with such questions as the following are needed: What type of local unit is desirable in a particular situation?"[13]

In the Research Bulletin of the National Education Association, September, 1931, is found the statement that [14] "Research as to the effectiveness of various types of local school units is badly needed."

Two recent studies of a comparative nature pertinent to these thoughts have recently been made and deserve mention at this time. Miss Blanton [15] has studied the evolutionary development of the county as a factor in school control in Pennsylvania and Maryland as well as several other states. She set up the following definitions:

> "A perfected county unit of school administration is one in which (1) ultimate authority is vested in a county board of education, elected by the qualified voters of the county; and (2) in which there is administration of the schools of the county by a chief school officer selected by the county board of education to act as the executive of the board.
>
> A defective county unit is lacking in one or all of the following: (1) ultimate authority vested in a county board of education elected by the qualified voters of the county; (2) a chief county school administrative officer; (3) authority by the county board of education to select

[12]Butterworth, Julian E., "Types of Local School Units", National Society for the Study of Education, 30th Year Book, pp. 204-205, 1931.
[13]Ibid., p. 205.
[14]Op. cit., p. 243.
[15]Blanton, Annie Webb, "A Study of the County as a Factor in the Development of School Control", Ph.D. Thesis, Cornell University, 1928.

the chief county school administrative officer and to exercise control as to his powers and duties.

An integral county unit is one in which all of the schools of the county are under the administration of the county board of education or of the chief county administrative officer.

A partial county unit is one in which certain schools of the county are exempted from such control as may be exercised by the county board of education or by the chief county school administrative officer."[16]

Upon these bases she has made the following classification of the county organization in Pennsylvania and Maryland.

Pennsylvania—defective, partial.
Maryland—defective, integral.[17]

Still more recently, Nuttall[18] has studied certain phases of education before and after complete county unit organization in Utah and Maryland. He investigated the number of days of school, pupils' attendance and the quality of the teaching staff. The entire study is essentially an historical one. The author concludes that

"The similarity in the results of all parts of this study of the progress made in the equalization of the educational offering in both states, except in the comparisons of the teachers' salaries, justifies the conclusion that the county unit system was an important factor contributing to this progress."[19]

One is moved, however, to ask the question of whether other states would not have shown similar progress during the same period without a change of administrative units.

Purpose of this Study

In the light of investigations which have been suggested as needed, especially for particular situations, this study will attempt:

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[16]Ibid., pp. 51, 53.
[17]Ibid., pp. 58, 59.
[18]Nuttall, L. John: Progress in Adjusting Differences of Amount of Educational Opportunity Offered under the County Unit Systems of Maryland and Utah. Teachers College, Columbia University, Contributions to Education, No. 431, 1931.
[19]Ibid., p. 77.

1. To obtain, analyze and interpret objective data concerning situations and tendencies in certain counties in Pennsylvania where the cities, boroughs and townships are the units for the administration and support of public education and in a like number of counties in Maryland where the county itself is the governmental educational unit.
2. To evaluate in the light of the data secured certain features of the Maryland plan of county organization as related to the possible reorganization of the unit of educational administration and support in Pennsylvania.

Scope of the Study

To secure evidence vital to the fulfillment of the purposes suggested, it was found necessary to make detailed administrative, financial and supervisory studies of a sampling of seven counties chosen as relatively representative in Pennsylvania and a like number of counties in the State of Maryland. Those in the latter state were selected largely because of their individual similarity to the Pennsylvania counties in certain respects, and of their general similarity in toto to those of the Pennsylvania group.

Using as the basis of selection; (1) the number of children to be educated, (2) the number of teachers, (3) area and location, (4) topography, (5) population and density, (6) wealth, (7) industries, (8) characteristics of the population, the counties as presented in Table I were chosen for study in each state.

TABLE I

THE SELECTED COUNTIES

Pennsylvania	*Maryland*
1. Adams	1. Carroll
2. Bradford	2. Frederick
3. Chester	3. Baltimore
4. Clearfield	4. Allegheny
5. Crawford	5. Washington
6. Greene	6. Garrett
7. Pike	7. Calvert

In the listing as indicated, the Maryland counties stand opposite their similar counties in Pennsylvania. Further details concerning the selection of these counties and their characteristics will be presented in Chapter II. Because of probable relationships to the type of administrative unit, the following topics will be studied and treated in single chapters as designated; (1) Present status of the educational organization in each state, (2) Ability, effort and need of the administrative units, (3) Expenditures for education, (4) Administration and supervision, (5) Taxation and assessment, (6) Other factual data related to the unit of organization in each state.

To aid in interpreting the data recorded and evaluating the types of administrative units, the following criteria will be considered:

1. The relationships of ability and effort.
2. Expenditures for education:
   (a) The distribution of the major and minor items of the budget.
   (b) Transportation—availability and costs.
   (c) The costs and burdens of non-resident high school tuition.
3. Supervision and administration as regards:
   (a) Availability.
   (b) Costs.
   (c) Training of the administrators and supervisors.
4. Sources of support:
   (a) The basis and types of taxation.
   (b) Methods of assessment.
5. Percentages of elementary school graduates continuing higher education.
6. Cost eliminations possible for Pennsylvania under the county unit system.
7. The elimination of one-teacher schools.

Methods of Procedure

To secure the data necessary for the carrying out of this investigation, it was necessary to consult frequently the files of the Departments of Public Instruction in both states. Several days were spent in each of these Departments in Harrisburg and Baltimore studying the reports of school officials as listed under "Sources of Data." In this connection, it is significant to note that all reports and records from lay-school officials which were consulted had been filed under affidavit. In Maryland, all data gathered early in the year 1930 were checked against those contained in the official 1930 Report of the State Department of Education.

The School Laws of both states have been gone into in detail for data pertaining to the investigation, as have also the Tax Laws of Maryland as compiled and published by the State Tax Commission, as well as the Seventh Annual Report of that Commission. The tax laws of Pennsylvania were consulted in Purdon's Pennsylvania Statutes.

All of the Maryland counties studied, except Carroll, publish printed or typewritten reports which were frequently examined during the progress of the study.

A short questionnaire covering transportation data was also used for all 1930 non-resident high school children in Chester County, Pennsylvania. The details concerning the administration of this and the validation of the data will be discussed in detail in Chapter V.

The basic data pertaining to expenditures for non-resident high school tuition, to the elimination of one-teacher schools and to the percentages of elementary school graduates entering secondary schools, has been examined and validated personally by the Pennsylvania county superintendents in their respective counties. The validation of similar matters for the Maryland counties was obtained through the Annual Report of the State Department of Education for 1929-1930. Members of the Pennsylvania Department of Public Instruction have also approved of the method used to calculate the tax rates necessary to support the present educational program on a county unit

basis. The material concerning the "Present Status of the Educational Organization" and that devoted to "Taxation" have been reviewed and validated by the Deputy State Superintendent in charge of Administration in Pennsylvania and the Statistician in the Maryland State Department of Education.

In a number of cases, data concerning tax rates and persons taxable were secured either in person or by correspondence from the offices of the county commissioners in the counties concerned and from the Pennsylvania Department of Internal Affairs.

During the course of the investigation a personal visit was made to each of the counties in Maryland used in the study where the county superintendent or his assistant was interviewed. Visits were made also to those Pennsylvania counties with which the writer was not already familiar and frequent contacts, personal and through correspondence were made with the county superintendents.

A large number of interviews was also had with various members of the State Departments in each state, either as a preliminary to the study or during its progress.

Sources of Data

Actual data used in the study have been secured from sources as follows:

1. Annual Financial Reports and Applications for Appropriations from school districts in Pennsylvania on file in the State Department of Public Instruction, Harrisburg, Pennsylvania.
2. Annual Statistical Reports for 1929-1930 from the Maryland county superintendents to the State Department of Education on file in that Department at Baltimore, Maryland.
3. Annual Reports of the County Superintendents in Pennsylvania on file in the State Department of Public Instruction.
5. Annual Reports of the County Boards of Education in Maryland.
6. Official publications of the United States Census Bureau, covering the Fifteenth Census.
7. Sixth Pennsylvania Industrial Directory from the Department of Internal Affairs, Harrisburg, Pa.
8. Professional record cards containing data on training, experience and salaries of the county administrative and supervisory officers,

these records being on file in the Department of Public Instruction in Pennsylvania and the State Department of Education in Maryland.

9. Unpublished statistical studies of attendance and consolidation made available by the Pennsylvania State Department of Public Instruction.

10. Data from questionnaires to non-resident high school pupils in Chester county, Pennsylvania.

In addition to the above, a wealth of material bearing upon the subject under investigation has been consulted. Specific references will be made to the detailed sources used.

CHAPTER II

THE CHARACTERISTICS OF THE COUNTIES SELECTED

Even a cursory examination of the sixty seven counties in the State of Pennsylvania will indicate that there is a great variation in an almost indefinite number of characteristics. Inhabited by people of many nationalities and creeds, with counties including metropolitan and suburban areas and those of an unusually sparsely settled and mountainous nature, with some of the richest as well as some of the poorest agricultural sections in the nation, and with many extremely important manufacturing regions, it is evident that any selection of counties to be even fairly representative of the commonwealth must concern itself with a large number of factors.

Maryland, with but twenty three counties, also presents an interesting range of characteristics. With the founders imbued with the spirit of religious toleration, there were drawn within her borders people of many types. From the bay side to the mountains which ascend to over three thousand feet, there is represented a range of topography, industry, and social and industrial life most interesting in its character. Gilbert Grosvenor, president of the National Geographic Society, makes the following observation:[1]

> "The visitor to Maryland, motoring over the thousands of miles of her splendid highways, soon discovers that the Old Line State is a delightful geographic miniature of America."

The areas of the counties in Pennsylvania, exclusive of Philadelphia County, vary from 130 square miles in Montour to 1,220 in Lycoming County.

Density of population ranges from 12.2 per square mile in Forest County to 1,895.6 in Allegheny County, again excluding Philadelphia. If Allegheny County is not considered because the City of Pittsburgh is located therein, Delaware

[1]Grosvenor, Gilbert, "A Maryland Pilgrimage", National Geographic Magazine, Vol. LI, No. 2, p. 133, Feb., 1927.

then becomes highest in density, with 1514.9 per square mile. Variations in total population from the 1930 Census range from 5,180 in Forest County to 1,374,310 in Allegheny, with Philadelphia reaching 1,950,961.

In Maryland the areas of the counties range from 218 square miles in Calvert to 685 in Garrett. Garrett is also the least densely populated county with 29.1 persons per square mile, Baltimore County being at the other extreme with 205.2 to the square mile. Total population figures show that Calvert is again lowest with 9,528 inhabitants while Baltimore County's[2] figures are highest with 124,565. Baltimore City has a total population of 804,874.[3]

Coincident with these variations are also those of numbers of teachers, pupils and assessable wealth in each state.

It is very evident, therefore, that any bases for the selection of representative counties must take into account the variable factors and situations found existent. Consequently, the following have been used as the bases for choosing the counties to be used in this study:

1. Number of children to be educated
2. Number of teachers
3. Area and location
4. Topography
5. Population and density
6. Wealth—assessed and real valuations
7. Industries
8. Characteristics of the population

It should be also stated at this point that in selecting the counties to be studied, it was necessary to keep in mind two things; first, that the Pennsylvania counties must be as representative of the state as possible, but, in the second place, they must be ones for which fairly similar counties in Maryland could be found. The final selections have come about as the result of much suggestion and criticism and with the advice and the help of the State Department of Education in both states.

[2]Baltimore county does not include Baltimore City which is a separate school district and municipality.

[3]All figures based on 1930 Census.

Obviously, no selection of counties comparable in all the respects enumerated could be made. One cannot change conditions already existing. Certain counties may be closely similar in but one or two respects; others in many more. In toto, however, there should be a large number of comparable situations.

These conditions seemed to be fulfilled in the counties which have been finally chosen for detailed study, and which have been presented in Chapter I. Their distribution is shown in the state maps exhibited as Charts 1 and 2. These will indicate the location of the above counties in each state, while important statistical data pertaining to them are found in Tables II, III, IV, V and VI.

The Pennsylvania counties which were selected, first, are well distributed as regards location and area.

ADAMS COUNTY, PA.

Adams County, located centrally along the southern border, exhibits a topography that ranges from undulating to hilly. It is largely agricultural with much fruit growing. There are no very large towns. Gettysburg with a 1930 population of 5,584 is several times larger than any other. Manufacturing has received some attention, with the outstanding classes being leather and rubber goods, lumber and its manufactures, food and kindred products. The most recently published total productive value of its industries was $12,226,700.[4]

BRADFORD COUNTY, PA.

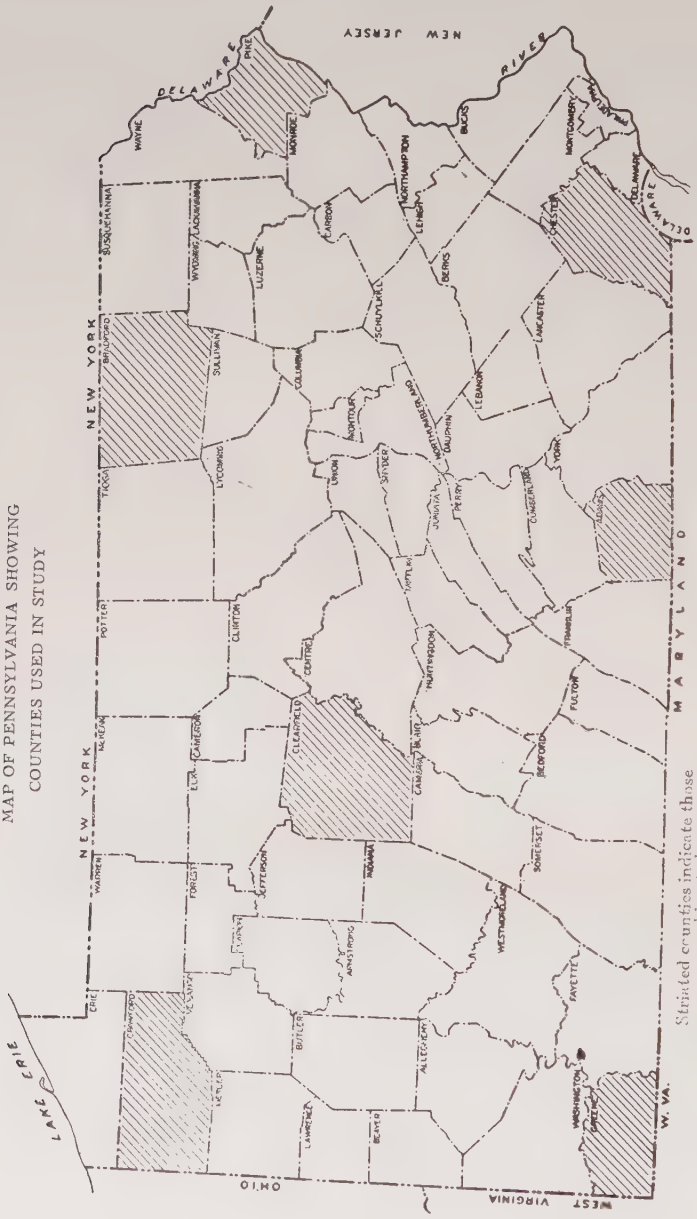
Bradford County is along the north tier, third from the eastern border. It is outside the mountain area but the surface is elevated and in sections hilly. Dairying is the chief industry, since the soil is well adapted for grazing.

The total productive value of its manufactured products in 1927 was $14,802,200. The most important classes of these industries were: textiles and textile products, metal and metal products, food and its kindred products.[5]

[4]Sixth Industrial Directory of Pennsylvania, p. 19.
[5]Ibid., p. 132.

CHART I

MAP OF PENNSYLVANIA SHOWING
COUNTIES USED IN STUDY



Shaded counties indicate those used in study

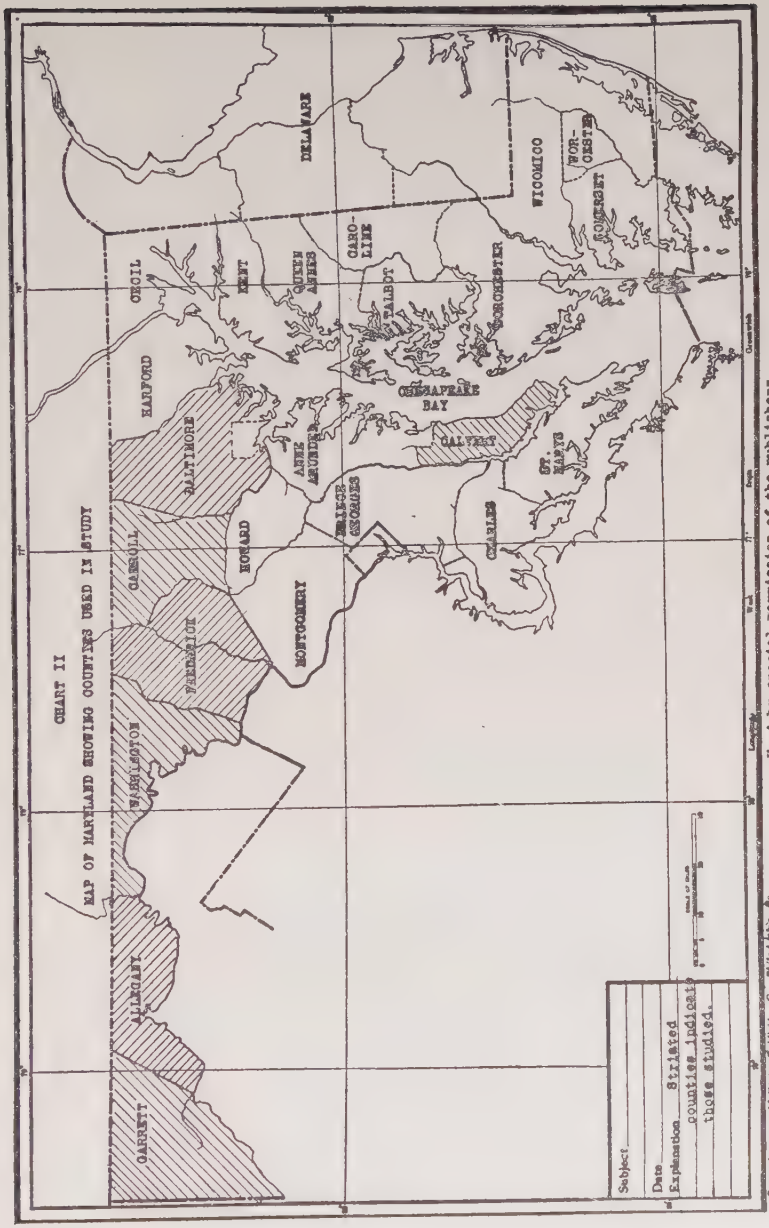


CHART II
MAP OF MARYLAND SHOWING COUNTIES USED IN STUDY
GARRETT
ALLEGANY
WASHINGTON
FREDERICK
CARROLL
HOWARD
MONTGOMERY
BALTIMORE
HARFORD
CECIL
KENT
QUEEN ANNES
CARO-LINE
TALBOT
DORCHESTER
WICOMICO
WOR-CESTER
SOMERSET
DELAWARE
CHESAPEAKE BAY
ANNE ARUNDEL
PRINCE GEORGES
CALVERT
CHARLES
ST. MARYS
Subject
Date
Explanation Striated counties indicate those studied.
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TABLE II

DATA PERTAINING TO COUNTIES SELECTED IN PENNSYLVANIA

1 Counties	2 Average number of pupils belonging	3 Number of teachers	4 Area in square miles*	5 Population*	6 Density—number per square mile*	7 Assessed valuation in thousands of dollars (1929-1930)	8 Corrected valuation in thousands of dollars
1. Adams	6,683	244	528	37,128	70.3	17,067	27,822
2. Bradford	10,299	441	1,145	49,039	42.8	20,203	23,687
3. Chester	24,706	872	777	126,629	163.0	105,479	183,508
4. Clearfield	22,967	726	1,142	86,727	75.9	21,310	55,556
5. Crawford	12,191	515	1,038	62,980	60.7	35,810	75,497
6. Greene	9,417	396	574	41,767	72.8	59,679	117,995
7. Pike	1,110	56	544	7,483	13.8	8,222	8,362
Average (above counties)	12,481.9	464.3	821.7	58,821.9	70.3	38,252.9	70,347.7

*Data from Fifteenth Census of the United States, 1930, U. S. Census Bureau, Washington, D.C.

TABLE III

DATA PERTAINING TO COUNTIES SELECTED IN MARYLAND*

1 Counties	2 Average number of pupils belonging	3 Number of teachers	4 Area in square miles**	5 Population**	6 Density—Number per square mile**	7 Assessed valuation in thousands of dollars
1. Carroll	6,356	244	447	35,978	80.5	36,537
2. Frederick	10,303	326	663	54,440	82.1	65,244
3. Baltimore	20,130	528	607	124,565	205.2	164,308
4. Allegany	14,868	451	443	79,098	178.5	81,911
5. Washington	12,904	402	459	65,882	143.5	75,316
6. Garrett	4,468	188	685	19,908	29.1	21,526
7. Calvert	2,040	63	218	9,528	43.7	5,546
Average (above counties)	10,152.7	314.6	503.1	55,628.4	108.9	64,342

*In this Table and in subsequent ones, the Maryland counties will be arranged in the same order as their similar counties in Pennsylvania.

**Data from Fifteenth Census of the United States, U. S. Census Bureau, Washington, D. C.

In the field of education, the consolidation of schools has gone forward rapidly in Bradford County.

CHESTER COUNTY, PA.

Chester County, in the southeastern corner of the state, bears in part a suburban relationship to Philadelphia. It is on the whole a rich agricultural county with dairying occupying a leading position. The topography ranges from undulating to hilly.

In the larger centers, notably Phoenixville, Coatesville, Spring City and Downingtown, the industrial activities are extremely important. Outstanding are those of the metals and metal products, textiles and textile products, paper and printing. The total productive value of all manufactures for 1927 was $66,057,100.[6]

The chief racial peculiarity is the presence of many negroes in the southern part of the county. There is also found a rather large foreign element in the industrial areas and in the south central section where mushroom growing is an important industry.

Chester County, too, has been a leader in the establishment of consolidated schools.

One of the largest of the State Teachers Colleges is located at West Chester, the county seat.

CLEARFIELD COUNTY, PA.

Clearfield County, possessed of great mineral wealth, largely in the form of bituminous coal, is located in the central part of the state. It is a typical mountainous county on the western slope of the Alleghenies. All of its surface is elevated and much of it is hilly. About one third of its area is in farms.

Mineral wealth other than coal exists in the form of limestone, iron ore, fire brick clay and glass sand. The total productive value of its manufactured products in 1927 was $24,752,400.[7]

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[6]Ibid., p. 180.
[7]Ibid., p. 195.

Many districts of the county, due to lack of taxable wealth or lacking power to tax available mineral wealth, find it difficult to support an adequate educational program with the present system of state aid.

CRAWFORD COUNTY, PA.

Crawford County is in the northwestern corner of the state in the second tier. It contains no mountains and only a small part is very hilly. Several lakes exist within its borders, Conneaut Lake being the largest in the state.

Agriculture is the leading industry, but manufacturing is also quite a factor. The combined productive value of the latter in 1927 was $21,227,900.[8] The chief classes of industry are metals and metal products, chemicals and allied products, and food and kindred products.

The county also lies in the western oil and gas belt.

GREENE COUNTY, PA.

Greene County is located in the extreme southwest corner. The topography is broken but not mountainous, approximately ninety five per cent of the total area being in farm lands.[9]

Fine bituminous coal fields exist and oil and gas are abundant.

The chief classes of manufacturing are mine and quarry products and chemicals and allied products.

PIKE COUNTY, PA.

Pike County, one of the smallest in the state, is in the second tier on the northeast, touching the eastern border. Its surface is elevated and uneven, mountainous in the southwestern part.

Lumbering was formerly the principal industry, but now farming is the chief occupation, although less than one half of the area is tilled.[10]

[8]Ibid., p. 214.
[9]Ibid., p. 293.
[10]Ibid., p. 583.

The county is much used for camps, recreation places and resorts, a fact which tends to inflate land values to a point considerably beyond values for agricultural and other purposes.

Some little attention is paid to manufacturing but the total productive value in 1927 was but $552,000.

Pike County was the first in the State to attain standard certification for its teachers and has also developed some excellent consolidated schools.

While it must be kept in mind that the counties are not "paired" in the sense that children may be "paired" in a controlled experiment, certain similarities do exist between individual counties selected.

CARROLL COUNTY, MD.

Carroll County, Maryland, is along the northern border of the state adjacent to Adams County, Pennsylvania. It is decidedly an agricultural county, with Westminster, the largest town, having a population of 3,521. The topography is also a continuation of that of Adams County.

There were but 326 colored pupils belonging in school in the entire county in 1929-1930.[11] Otherwise, the racial and social composition of the population in the two counties is very similar. There are also certain elements of German descent and elements of Mennonite and Amish faith in each county.

Very close relationships between the two counties are also seen in the data presented in Tables II and III.

FREDERICK COUNTY, MD.

Frederick County, adjacent to Carroll, is in the north central area of the state. It is a strong agricultural county with a topography that is, in general, undulating to hilly. Much similarity is shown in the phases just mentioned to Bradford County, Pennsylvania, while no significant differences in the characteristics of the population exist.

[11]All data on enrollment of colored children from 1930 Report, Maryland State Department of Education, Table 114, p. 178.

Each of the above mentioned counties had approximately the same number of pupils belonging in 1929-1930 and closely similar total population figures. Frederick County, however, is more densely settled than is Bradford.

There were 950 colored pupils belonging in the county in 1929-1930 out of a total of 10,303.

BALTIMORE COUNTY, MD.

Baltimore County, while suburban to Baltimore City in the southern part is also an excellent agricultural county, with dairying occupying an important place as an industry. Its topography is undulating to hilly.

There is also considerable manufacturing adjacent to Baltimore City.

Close similarities are found in nearly all of the statistical data presented in Tables II and III for both Baltimore County, Maryland, and Chester County, Pennsylvania. In the former, however, there occurs a greater density of population, 205.2 to the square mile as against 163 in Chester County.

Baltimore County in 1929-1930 had 1,877 colored children belonging in school out of a total of 20,130.

The largest Normal School in Maryland for the training of teachers is located at Towson, the county seat.

ALLEGANY COUNTY, MD.

Allegany County is also located along the northern border but in the "Western Maryland" region.[12] Its topography is hilly to mountainous.

The most profitable industry in the county is mining, although about one half of its area is laid out in farms. The notable "Big Vein" or "Fourteen-foot" seam of coal is found largely within the county.[13] This is a very high type of semi-bituminous or soft coal, extending all the way over into the Pittsburgh region. Cement rock, fire clay and limestone are also quarried.

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[12]Ellsler and Gallagher, The Geography of Maryland, p. 31.
[13]Ibid., p. 32.

Cumberland is the second manufacturing city in the state, while at Frostburg in the extreme western part is found an important State Normal School.

The county shows many similarities with Clearfield County, Pennsylvania, in the aspects mentioned. In size, it is less than half as large but in number of pupils belonging, number of teachers and population, the ratio is in the neighborhood of 2:3. Allegany, however, possesses a greater amount of taxable wealth and a greater density of population.

The number of negroes belonging in the schools of the county in 1929-1930 was 315 out of a total of 14,868, a very low ratio.

WASHINGTON COUNTY, MD.

Washington County is also in the geographic area of "Western Maryland", adjoining Allegany on the east.

The productive Hagerstown valley is found in the central part of the county while in both the eastern and western ends rather high elevations occur. In addition to general agriculture, considerable fruit growing is carried on.

This is the third largest county in the state in number of pupils and teachers, while Hagerstown is the third largest city in the commonwealth.

There were but 349 colored pupils belonging in the county in 1929-1930 out of a total of 12,904.

In these respects and in number of pupils, teachers, population and taxable wealth very close relationships exist between this county and Crawford County, Pennsylvania.

GARRETT COUNTY, MD.

Garrett County in the extreme northwest corner of the state, presents a topography that is elevated and to a slight extent rather mountainous.

General agriculture is carried on quite effectively but it is best adapted to raising cattle and the growing of fruits and vegetables.

Considerable coal is mined in the county, especially in the southeastern and eastern areas.

A large artificial lake in the south central part emphasizes the possibility of the developments of resort and play places. The climate of the county is delightful for this purpose.

No colored pupils were reported in the county for 1929-1930.

Reference to the maps presented will show the close proximity of Garrett County and Greene County, Pennsylvania. Both counties present similar topographic conditions, except that Garrett County has a more uniformly high elevation. Both counties have considerable agriculture and coal mining, Greene, however, leading in the latter respect.

In number of pupils belonging, number of teachers, population and assessed wealth, the figures for Greene County are approximately twice those of Garrett.

It might be added that Garrett and Allegany Counties are the only ones in Maryland where coal mining is carried on, it being all of a bituminous or semi-bituminous nature. For this reason no additional counties from the anthracite region in Pennsylvania were chosen for study.

CALVERT COUNTY, MD.

Calvert County is the smallest county in the state and also has the lowest valuation. It is located along the western shore of Chesapeake Bay and contains no large towns.

It has strong agricultural possibilities, many of which are as yet untouched. Considerable truck farming is carried on and a very high grade of tobacco is raised, most of which is exported to European countries.

Many bayside and river resorts are found in the county, enhancing the valuations of the property concerned.

Its similarity to Pike County, Pennsylvania, lies in its population, number of teachers employed, the taxable wealth and the fact that land and property values are increased over their values for agricultural purposes by the resort and recreational uses to which they are put.

Pike County, however, due to its size and topography, has difficulties which are not found in Calvert in the transportation of its pupils.

Calvert County, too, has a large colored school population, there being in 1929-1930 an average number belonging of 1,048 out of a total of 2,040 for both white and colored. The number of pupils belonging in Pike County where there are very few colored pupils is just about the same as the number of white pupils belonging in Calvert County.

The data presented in Tables II and III indicate a very close similarity among the three most important items of all those which were considered; i. e., average number of pupils belonging, average population figures and the amounts representing the average true valuation of taxable property.

In the first case, there were in the selected Pennsylvania counties an average number of children belonging of 12,481.9 and in the Maryland counties studied 10,152.7. Secondly, there was an average population of 58,821.9 in the Pennsylvania counties and 55,628.4 in Maryland. In the third place, the average "real" valuation of the property taxable for school purposes in the Pennsylvania group of counties was $70,347,700, while the comparable figures for the Maryland counties were $64,342,000. The "real" valuations for Pennsylvania have been calculated from the assessed valuations and from the sworn statements of the school board secretaries in the Annual Financial Reports, showing the relationship which those figures bear to the real valuations. In each case the average ratio for a three year period was taken, as is done by the Pennsylvania State Department of Public Instruction in determining the allotment of state appropriations. It is granted that these figures are not entirely accurate but they are the most reliable ones available at the present time and it is not the province of this study to develop a new method of determining the real valuation of property.

In Maryland, property assessments are supervised by the State Tax Commission,[14] local assessments being in the hands of a county assessor,[15] in a system the details of which will be described in a later chapter.

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[14]Tax Laws of Maryland, Sec. 158.
[15]Ibid., Sec. 32.

The Tax Laws also decree that property shall be assessed at the full cash value.[16]

It is doubtful, however, if this goal is entirely reached, but no definite figures are available as to just exactly what the ratio is at any time. It seems fair to assume, from interviews and correspondence, which the author has had with authorities in the State of Maryland, that the assessed valuations are, in general, reasonably close to the real valuations. The State Tax Commission is constantly striving to bring this about and in correspondence, Mr. M. J. Lindsay, Chief Supervisor of Assessments for the State Tax Commission, wrote that the relationship of the assessed to the real value of property, in general, in the state (Maryland) is as near 100 per cent as it is possible to get it at the present time.[17] It is felt, therefore, that the figures presented for Maryland are rather closely comparable with those representing the "corrected valuations" in Pennsylvania.

Tables IV, V and VI present the rural and urban, farm and non-farm, and the general racial characteristics of each county, the average for the groups of counties and for each state as a whole.

Using urban in the terms of the census definition, i.e., any village or town with 2,500 or more inhabitants, we find in Table IV a wide range of rural characteristics for the Pennsylvania counties but the average for the seven selected counties is but one point less than the average for the entire state, obviously a typical situation.

Like characteristics in the Maryland counties, while showing also a wide range, exhibit an average condition very close to that shown by the Pennsylvania counties. It should be pointed out, however, that the average for the Maryland counties shows a wide divergence from the figures for the state as a whole, due probably, to the inclusion of Baltimore City in the state figures.

In any satisfactory analysis of the rural elements of the population, the farm population should be distinguished from the non-farm. This analysis is presented in Table V. Wide

[16]Ibid., Sec. 11.
[17]Personal letter under date of July 31, 1931.

variations are shown in this characteristic in each state but the average for each group of the counties is very close, indeed, the rural population being 39.7 per cent farm in Pennsylvania and 34.9 per cent in Maryland. The average for the Pennsylvania counties differs slightly from the figures for the state as a whole probably because the two largest suburban counties, Delaware and Allegheny, were not included in the counties used in this study.

TABLE IV

RURAL AND URBAN DISTRIBUTION OF THE POPULATION IN THE SELECTED COUNTIES AND IN EACH STATE AS A WHOLE*

Pennsylvania

	Counties	Per Cent Rural	Per Cent Urban
1.	Adams	85.0	15.0
2.	Bradford	66.6	33.4
3.	Chester	58.8	41.2
4.	Clearfield	72.4	27.6
5.	Crawford	60.7	39.3
6.	Greene	88.2	11.8
7.	Pike	100.0	0.0
	Average (above counties)	68.8	31.2
	Average in State	67.8	32.2

Maryland

	Counties	Per Cent Rural	Per Cent Urban
1.	Carroll	87.6	12.4
2.	Frederick	66.7	33.3
3.	Baltimore	100.0	0.0
4.	Allegany	49.9	59.1
5.	Washington	53.2	46.8
6.	Garrett	100.0	0.0
7.	Calvert	100.0	0.0
	Average (above counties)	74.3	25.7
	Average in State	40.2	59.8

*Calculated from data in Population Bulletins of the Second Series for Maryland and Pennsylvania, Fifteenth Census of the United States.

TABLE V

DISTRIBUTION OF THE FARM AND NON-FARM CHARACTERISTICS OF THE RURAL POPULATION IN THE SELECTED COUNTIES AND IN EACH STATE AS A WHOLE*

Pennsylvania

	Counties	Per Cent Farm	Per Cent Non-Farm
1.	Adams	47.5	52.5
2.	Bradford	57.5	42.5
3.	Chester	35.8	64.2
4.	Clearfield	22.9	77.1
5.	Crawford	59.8	40.2
6.	Greene	34.8	65.2
7.	Pike	28.4	71.6
	Average(above counties)	39.7	60.3
	Average in State	27.3	72.7

Maryland

	Counties	Per Cent Farm	Per Cent Non-Farm
1.	Carroll	47.0	53.0
2.	Frederick	51.6	48.4
3.	Baltimore	15.4	84.6
4.	Allegany	16.2	83.8
5.	Washington	38.4	61.6
6.	Garrett	51.2	48.8
7.	Calvert	61.7	38.3
	Average (above counties)	34.9	65.1
	Average in State	35.9	64.1

*Op. cit., TABLE IV.

In the racial characteristics of the population, presented in Table VI, a very close similarity is shown in the average distribution of the native white element in each group of counties,—89.9 per cent in the Pennsylvania counties selected and 90.4 per cent in the Maryland group. Close similarities are also seen in the average figures for the foreign born white and negro elements of the population.

Calvert County is the only county in Maryland showing any large proportion of negroes but its selection seemed wise on account of the close relationship with Pike County in Pennsylvania in all the other aspects previously mentioned. No other Maryland county even approximated this relationship.

TABLE VI

RACIAL COMPOSITION OF THE POPULATION IN THE SELECTED COUNTIES AND IN EACH STATE AS A WHOLE*

Pennsylvania

	Counties	Per Cent Native White	Per Cent Foreign Born White	Per Cent Negro
1.	Adams	98.9	0.4	0.7
2.	Bradford	96.8	2.9	0.2
3.	Chester	82.5	7.0	10.4
4.	Clearfield	90.7	8.9	0.4
5.	Crawford	92.8	5.9	1.3
6.	Greene	90.8	8.0	1.2
7.	Pike	90.2	9.2	0.8
	Average (above counties)	89.9	6.4	3.7
	Average in State	82.6	12.8	4.5

Maryland

	Counties	Per Cent Native White	Per Cent Foreign Born White	Per Cent Negro
1.	Carroll	93.6	1.5	4.9
2.	Frederick	90.8	0.6	8.7
3.	Baltimore	85.0	5.5	9.4
4.	Allegany	95.2	2.9	1.8
5.	Washington	96.1	0.9	3.1
6.	Garrett	98.5	1.4	0.1
7.	Calvert	52.3	0.3	47.4
	Average (above counties)	90.4	2.8	6.8
	Average in State	77.2	5.8	16.9

*Op. cit., TABLE IV.

Summary

This chapter has pointed out the wide variations in a great many characteristics and situations which exist in both Pennsylvania and Maryland and has maintained that the selection of representative counties must be made largely on the basis of these variations.

The bases upon which the selections were made were stated as: (1) Number of children to be educated, (2) Number of teachers, (3) Area and location, (4) Topography, (5) Population and density, (6) Wealth, (7) Industries, (8) Characteristics of the population.

Keeping in mind that the Pennsylvania counties must be as representative of the state as possible, but that they must be ones for which fairly similar counties could be found in Maryland, the following counties were chosen for intensive study:

Pennsylvania	*Maryland*
1. Adams	1. Carroll
2. Bradford	2. Frederick
3. Chester	3. Baltimore
4. Clearfield	4. Allegany
5. Crawford	5. Washington
6. Greene	6. Garrett
7. Pike	7. Calvert

It has also been emphasized that the counties are not paired but that similarities do exist between individual counties. In toto there are close relationships for the groups.

Analyses of statistical data pertaining to the bases of selection were presented and the characteristics of the individual counties discussed in some detail.

CHAPTER III

PRESENT STATUS OF THE EDUCATIONAL ORGANIZATION IN PENNSYLVANIA AND MARYLAND

Education a State Function

The purpose of this chapter is to discuss the organization for state and local administration of public education in Pennsylvania and in Maryland, especially as regards the statutory provisions pertaining thereto. Such an analysis is necessary for a complete understanding and interpretation of the data to be presented later in the study. For the same reason, it has also been deemed advisable to present the general legal regulations and limitations as they pertain to the following situations in each of the above mentioned states: (1) taxation, (2) borrowing capacity, (3) transportation, (4) supervision and (5) non-resident high school attendance and tuition.

In any discussion of the organization for education in either Pennsylvania or Maryland, there must be kept very definitely in mind the fact that education is primarily a function of the state and that all local authority is delegated by the state. "Our schools arose", says Doughton, "as purely local institutions to meet local needs; but school authority is fundamentally not local."[1] The same author cites the following quotation of Finegan bearing upon the subject:

> "What I regard as one of the great fundamental principles of school administration in this country is that public education is a function of the State and not a function of a municipality nor of any local division of the State. Every school system of every State in the country has been founded upon that principle, and whenever it has been challenged in any State of the Union and the courts of the State have had opportunity to pass upon the question, they have weighed the matter and held that public education is a function of the State and not a function of the locality. No one can point to a single decision of a court of final jurisdiction in any State of this Union which has held to the contrary."[2]

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[1]Doughton, Isaac, Evolution of the Public School Bonded Debt in Pennsylvania, p. 20.

[2]Finegan, T. E., N. E. A. Proceedings, 1916, p. 348.

Strong evidence for the same point of view is also found in Cubberley's discussion of the problem. He says "The school district, the township, the village, the city and the county are all alike subordinate creations of the State, erected for the purpose of better local administration."[3] The same author also cites numerous court decisions in support of the principle of state authority and control of education.[4]

(a) *Pennsylvania Organization*

The first mandate for the setting up of a system of schools in the Commonwealth of Pennsylvania is found in the provisional constitution of 1776.[5] The following statement is noted therein, "A school or schools shall be established in each county by the legislature for the convenient instruction of youth, with such salaries as to masters paid by the public as may enable them to instruct youth at low prices, and all useful learning shall be encouraged and promoted in one or more Universities."

It is not, however, the purpose of this study to trace the development of public education in Pennsylvania. This has been done in detail by able individuals . It is sufficient to say that neither the mandate above mentioned nor that of the constitution of 1790 "providing for the establishment of a system of schools throughout the state where the poor may be taught gratis" found expression in the beginning of a system of free public schools until 1834. No further definite Constitutional change, however, came into existence until 1873; Article X, Section I, "The General Assembly shall provide for the maintenance and support of a thorough and efficient system of public schools, wherein all the children of this Commonwealth above the age of six years may be educated, and shall appropriate at least one million dollars each year for that purpose."[6] This provision of the Constitution is the basis of the present Pennsylvania School Code entitled "An Act to establish a public school system in the Commonwealth of Pennsylvania,

[3]Cubberley, E. P., Public School Administration, p. 16.
[4]Ibid., pp. 18-21.
[5]Wickersham, J. P., History of Education in Pennsylvania, p. 256.
[6]Constitution of Pennsylvania, Article 10, Section I.

together with the provisions by which it shall be administered, and prescribing penalties for the violation thereof; providing revenue to establish and maintain the same, and the method of collecting such revenue, and repealing all laws, general, special or local, or any parts thereof, that are or may be inconsistent therewith. (Approved May 18, 1911, P. L. 309)."[7]

For the executive and administrative work pursuant to carrying out of the above provision and the duties connnected therewith, there is set up among other state administrative departments, a Department of Public Instruction,[8] whose executive officer is the superintendent of Public Instruction. As an administrative board there is also set up in the Department of Public Instruction a State Council of Education.[9]

The Department of Public Instruction is specifically charged "To administer all of the laws of this Commonwealth with regard to the establishment, maintenance and conduct of the public schools and particularly the act, approved the eighteenth day of May, one thousand nine hundred and eleven."[10]

Other duties pertaining to free public education and definitely prescribed and assigned to the Department of Public Instruction, may be listed as follows:[11]

> "To prepare and furnish through the county and district superintendents blank forms for annual district reports and other forms for carrying out the details of the system in a uniform and efficient manner.
>
> To prepare and furnish the proper persons suitable blanks and all other papers required by law.
>
> To advise, upon request, relative to the school laws and all questions and matters calculated to promote the cause of education.
>
> To classify the high schools of the state.
>
> To commission all superintendents and assistant superintendents.
>
> To prescribe minimum courses of study.
>
> To furnish school boards blank forms for accounting and samples of all bonds required for officers and depositories required by law.

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[7]School Laws of Pennsylvania, 1929, p. 2.
[8]School Laws of Pennsylvania, 1929, Section 2901 (See also Pennsylvania Administrative Code, Section 201).
[9]Ibid., Section 2902. (Also Administrative Code, Sec. 202).
[10]Ibid., Section 2904. (Also Administrative Code, Sec. 1302.)
[11]Ibid. (Also Administrative Code, Sec. 1302 and 1303.)

To make valid for teaching in this state any permanent or life teachers' certificate from another state.

To condemn unsanitary or unfit school buildings or sites and to withhold or declare forfeited all or part of state appropriations due when conditions are not remedied."

The Superintendent of Public Instruction is the executive officer of the Department. He is appointed by the Governor for a term of four years "with the advice and consent of two-thirds of all members of the Senate."[12] His powers and duties are prescribed essentially as listed below:[13]

Have charge of the seal of the Department.

Send a copy of each new edition of the School Code to each school director in the state.

Administer oaths or affirmations concerning the affairs and duties of his office.

Appoint and fix compensations of such deputies as the Executive Board shall approve.

Appoint and fix compensation of directors, assistant directors, and all other employees required, subject to the approval of the Governor and the salary regulations of the Executive Board.

Exercise all the powers and perform all the duties of the Superintendent of Common Schools, in the manner prescribed by law.

Perform such other duties as may now or hereafter be imposed upon him by law.

Fix and collect reasonable fees for certain services rendered to persons other than State Departments for the distribution of lantern slides and films, furnishing certified, photographic, or photostatic copies, for the distribution of printed matter issued by the Department, for holding pre-professional examinations, and for other services rendered.

Other duties and powers assigned to the State Superintendent of Public Instruction throughout the Code are as follows:

Issue certificates showing changes in classification of school districts. Section 107.

Act as president and executive officer of the State Council of Education. Section 902.

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[12]Ibid., Section, 3003, 3004. (Also Administrative Code, Sec. 207.)
[13]Ibid., Article X, Article XXX. (Also Administrative Code, Sec. 708.)

Investigate financial records of any school district. Section 1019.

Act as executive officer of the State Department in commissioning county and assistant county superintendents, district and assistant district superintendents. Sections 1111, 1127, 1141.

Appoint county superintendents for unexpired term where vacancy exists. Section 1120.

Requisition monthly salaries and expenses of county and assistant county superintendents. Section 1121.

Withhold appropriations from districts employing incompetent teachers and violating compulsory attendance laws. Sections 1150, 1431.

Determine and certify to the State Treasurer and Auditor General the amounts of state appropriations due districts. Section 1210.

Validate certificates from other states. Section 1318.

Provide for special examinations for temporary and permanent certification of teachers. Section 1319.

Issue college provisional and college permanent certificates. Sections 1316, 1317.

Annul teachers' certificates for incompetency, cruelty, negligence' immorality, or intemperance. Section 1322.

Arrange minimum courses of study. Section 1608.

Prescribe rules and regulations for admission of pupils to high school. Section 1703.

Give permission for the establishment of high schools in fourth class districts. Section 1701.

Approve regulations for the government and discipline of Teachers Colleges; call meetings of the Boards of Trustees of Teachers Colleges. Section 2005.

Prepare final examinations and fix standards of instruction and graduation from State Teachers Colleges. Section 2006.

Approve tuition and boarding costs at State Teachers Colleges. Section 2008.

Prescribe all forms and give all instructions required for carrying into full effect the acts establishing and regulating State Teachers Colleges not set forth in detail. Section 2010.

Approve the by-laws and rules of the Board of Trustees of the State Teachers Colleges. Section 2014.

Appropriate and distribute all moneys paid by the state for the maintenance and support of the public school system. Section 2302.

Pay share of state appropriation to districts unable to keep their schools open for minimum term on account of contagious disease, destruction of buildings by fire or otherwise. Section 2311.

Decide disputes concerning the attendance of pupils in other districts in one specific case. Section 2806.

As the executive officer of the State Department, condemn unsanitary buildings and sites. Section 2904.

Appoint, with the approval of the State Council of Education, such expert assistants, other than those already required by law, as may be necessary in vocational, industrial, vocational home economics, vocational agricultural, or vocational commercial education, and all clerical and other agents necessary in carrying out the provisions of this act. Section 3407.

Pay to school districts or joint districts re-imbursements for instruction in approved local or joint vocational industrial, vocational home economics, continuation schools, or vocational agricultural schools or departments. Section 3416.

Approve agreements between districts for the joint education of continuation school pupils. Section 3603.

Report to the State Council improper enforcement of the compulsory attendance and employment laws. Section 3620.

Act as a member of the State Retirement Board. Section 5604.

The State Council of Education, formerly called the State Board of Education, holds an exceedingly important position in the educational machinery of the state. It consists of the Superintendent of Public Instruction, who acts as president and chief executive officer, and nine other members [14]appointed by the Governor.

Section 6102 of the School Code and Section 1307 of the Administrative Code state that "The State Council of Education shall have the power and its duty shall be:

(a) Subject to any inconsistent provisions in this act contained, to continue to exercise the powers and perform the duties by law vested in and upon the said Council."

Definite and specific duties prescribed by the same section are:

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[14]Ibid., Section 6101. (Also Administrative Code, Sec. 408.)

To recommend to the Governor and the legislature legislation needed to make the public schools more efficient.

To equalize, through special appropriations, for this purpose, or otherwise, the educational advantages of the different parts of the commonwealth.

To encourage and promote vocational and practical education.

To prescribe rules and regulations for the sanitary equipment and inspection of school buildings and to take such other action as it may deem necessary and expedient to promote the physical and moral welfare of the children in the public schools of the commonwealth.

To investigate and make recommendations, pertaining to any school of design, industrial arts or industrial schools or other institutions wholly or partially state supported.

To exercise all the powers and perform all the duties formerly vested in the State Board of Education.

To change the name of any State Normal School to State Teachers College, and to designate the certificates and degrees which such college shall confer.

Other powers and duties prescribed for this body throughout the School Code are in brief:

Approve the creation of new districts. Section 116.

Approve plans of school buildings in second, third and fourth class districts. Section 615.

Prepare and publish school building plans and specifications without charge. Section 616.

Supervise, inspect, adopt standards for, and require reports from schools or institutions partially or wholly state supported; to recommend needed appropriations to the Governor and General Assembly and to supervise their expenditures. Section 906.

Make its own by-laws and necessary regulations. Section 909.

Employ such assistance and incur such other expenses as are necessary in its work within appropriation limits. Section 912.

Correct and approve true valuation of taxable property. Section 1210.

Give permission to open schools closed for low attendance and give permission to keep schools open which would otherwise be closed for the same reason, both of above upon petition of the school board. Section 1406.

Approve schools, classes and teachers for the education of defectives. Section 1413.

Educate blind children when parents are unable to do so. Section 1439.

Control and manage the State School Fund. Section 2702.

Prepare for the legislature a biennial estimate of necessary appropriations. Section 3415.

Administer the Vocational Education Act. Section 3420.

Upon the report of the State Superintendent of Public Instruction, appoint attendance officers in districts which do not enforce the provisions of the child employment act and the compulsory attendance laws. Section 3620.

Investigate and aid in the establishment of consolidated and joint consolidated schools and to inspect and approve them. Section 3703.

Conduct examinations for state scholarships and award same. Section 4301.

Approve charters and standards of admission for all colleges, universities and theological seminaries, hereafter to be incorporated to confer degrees. Section 6001.

The County

The county, in Pennsylvania educational organization, is an intermediate unit between the state and the almost autonomous local district or township. Blanton[15] in a recent study lists the following five periods in the development of the county as a factor in public education in Pennsylvania:

1. Colonial times to 1834.
   County participation in school affairs arose with the necessity of providing free education for the poor in existing neighborhood schools and academies.
2. 1835—1854.
   Establishment of the offices of county superintendent.
3. 1855—1878.
   Period of legislation strengthening the county superintendent.

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[15]Blanton, Annie Webb, A Study of the County as a Factor in School Control, pp. 137-139.
Unpublished Ph.D. Thesis, Cornell University, 1928.

4. 1879—1911.
   Efforts toward securing the closer supervision of rural schools under the direction of the county superintendent.
5. 1912—present.
   Established the position of the assistant superintendent and secured increased remuneration for county school officials.

Miss Blanton[16] also suggests four factors which have retarded the development of the county as the unit in Pennsylvania. They are essentially as follows:

1. The mixture of heterogeneous elements in the population.
2. The establishment by people of different nationalities of schools controlled by the churches of their respective denominations.
3. Widely scattered homes of the colonists.
4. Strong sentiment among the inhabitants for democracy in government and against centralization of power.

The county as a unit bears no part of the cost of education in the county except in providing, furnishing, and maintaining suitable quarters, supplies and equipment for the county superintendent and his staff and providing them with the necessary stenographic assistance required by law.[17]

The County and Assistant County Superintendents

The county superintendent of schools is the local administrative and supervisory officer of this unit. He is elected for four years by the convention of the school directors of the various districts and commissioned by the State Superintendent.[18] The School Code, sections 1123 and 1124 define in a general way the duties of the county superintendent as follows:

> "It shall be the duty of every county superintendent to visit personally as often as possible (in addition to the visiting herein required by the assistant superintendents, if any) the several schools in the county under his supervision, to note the courses and methods of instruction and branches taught, to give such directions in the art and methods of teaching in each school as he deems expedient and necessary, and to report to the proper board of school directors any inefficiency

[16]Ibid., pp. 139-140.
[17]School Laws of Pennsylvania, Sections 1125, 3201, 3202.
[18]Ibid., Art. XI, Sec. 1101, 1104, 1105, 1111.

found, so that each school shall be equal to the grade for which it was established and that there may be, as far as practicable, uniformity in the courses of study in the schools of the several grades."

Section 1124 states that

"It shall be the duty of every county superintendent to inspect the school grounds and school buildings visited by him and to report to the board of school directors of the proper district any violations of any of the provisions or requirements of this act regarding the sanitary or other conditions thereof."

Other specific powers and duties definitely assigned to the county superintendent of schools by the Code are as follows:

Call and attend meetings of school directors' associations. Section 807.

Arrange for the election of a county superintendent at the time provided for that purpose. Section 1100.

Report incompetency of teachers to the board of school directors. Section 1150.

Make an annual report and such other reports as may be required by the State Superintendent. Section 1151.

Keep a record of all teachers' certificates. Section 1324.

Submit to board or boards of school directors plans for establishing and maintaining special classes in the public schools or special schools for those reported to him as subjects for special education and training. Section 1413.

Forward enumeration lists of pupils to the Department of Public Instruction. Section 1426.

Add names to the enumeration lists of children. Section 1427.

Enforce provisions of the compulsory attendance laws where not enforced locally. Section 1428.

Approve courses of study in each school district. Section 1608.

Direct the grading and classifying of pupils. Section 1611.

Approve non-resident pupils to attend high schools outside the district. Section 1710.

Recommend courses of study for high schools. Section 1712.

Conduct county institutes. Section 2101.

Correct errors in reports of teachers' certificates for appropriation purposes. Section 2308.

Distribute forms and instructions for school reports, received from the Department of Public Instruction. Section 2904.

Furnish courses of study for unnaturalized residents. Section 4108.

Petition for the appointment of and certify teachers for the instruction of foreign born residents. Section 4109.

Enforce the provisions of the fire drill act. Section 4702.

Approve transportation contracts between boards of school directors and contractors or drivers. (Regulation of State Council of Education.)

Assistant county superintendents are also provided for in accordance with the number of teachers in the county as follows:[19]

"Every county superintendent having more than one hundred and fifty, and not more than three hundred and fifty teachers under his supervision, shall have an assistant superintendent; every county superintendent having more than three hundred and fifty, and not more than six hundred teachers under his supervision, shall have two assistant superintendents; every county superintendent having more than six hundred, and not more than eight hundred teachers under his supervision, shall have three assistant superintendents; and for each additional four hundred teachers, or fraction thereof, under his supervision, a county superintendent shall have an additional assistant superintendent, and the school directors of any county, at their convention for electing a county superintendent, may authorize the appointment of additional assistant superintendents to those herein provided for."

The assistant superintendents are appointed by the county superintendent,[20] ratified by the Executive Committee of the County School Directors' Association and commissioned by the State Superintendent in the same manner as is the county superintendent. Their duties[21] are essentially the same as those of the county superintendent, by delegation of authority, with emphasis, however, upon school visitation and supervision.

The District Superintendent

The duties of the district superintendents are the same as those required of the county superintendents and "such other

[19]Ibid., Section 1126.
[20]Ibid., Section 1127.
[21]Ibid., Section 1131.

duties as shall be required of them by the board of school directors of their respective districts." They are also given seats in the boards of school directors of the districts, with the right to speak on all matters but not to vote.[22]

The School District

The real autonomous division for school control in Pennsylvania is the local district. These local districts are, in general, coterminus with the other political and governmental units, i. e., cities, boroughs and townships. Provision is made, however, for the formation of two separate types of districts, "union"[23] districts created by the combining of two or more cities, boroughs or townships for school purposes and "independent"[24] districts formed by the cutting out of contiguous territory from one or more city, borough or township, and may not necessarily lie in the same civil unit.

Four separate classes, which include the specific cases mentioned above, exist in Pennsylvania, based entirely upon population, as follows:[25]

> All districts with a population of 500,000 or more are districts of the first class; those with 30,000 or more, but less than 500,000, districts of the second class; those with 5000 or more, but less than 30,000, districts of the third class; those with less than 5000, districts of the fourth class.

The affairs of each separate school district are managed by a board of directors elected at large, except in districts of the first class where they are appointed by the Courts of Common Pleas. Fifteen directors comprise the board in first class districts, nine in second class districts, seven in third class districts, and five in fourth class districts. All terms are for six years, with elections held biennially[26] in the last three types of districts. Directors in independent districts, however, are appointed by the judges of the Court of Common Pleas.

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[22]Ibid., Section 1142.
[23]Ibid., Section 110.
[24]Ibid., Section 117.
[25]Ibid., Sections 102, 103, 104, 105.
[26]Ibid., Article II.

TABLE VII

CLASSIFICATION OF SCHOOL DISTRICTS IN PENNSYLVANIA, AS OF JANUARY 1, 1931*

Class of district	Population limits	Number of districts in each class
First	500,000 or over	2
Second	30,000 to 500,000	20
Third	5,000 to 30,000	266
Fourth	Less than 5,000	2,299
		2,587

*Information furnished by Director, Bureau of Statistics and Research, Pennsylvania Department of Public Instruction.

Section 401 of the 1929 Code prescribes in a general way the duties and powers of boards of school directors:

> "The board of school directors in every school district in this Commonwealth shall establish, equip, furnish and maintain a sufficient number of elementary public schools, in compliance with the provisions of this act, to educate every person, residing in such district between the ages of six and twenty-one years who may attend; and may establish, equip, furnish, and maintain the following additional schools or departments for the education and recreation of persons residing in said district, and for the proper operation of schools, which said additional schools or departments, when established, shall be an integral part of the public school system in such district, and shall be so administered, namely:
>
> High schools
> Manual training schools
> Vocational schools
> Domestic Science schools
> Cafeterias
> Agricultural schools
> Evening schools
> Kindergartens
> Libraries
> Museums
> Reading rooms
> Gymnasiums
> Playgrounds

Schools for the blind, deaf and mentally deficient
Truant schools
Parental schools
Schools for adults
Public lectures—together with such schools or educational departments as they in their wisdom may see proper to establish."

It may be seen, of course, that in carrying out the above there will be many detailed duties and powers of the board of school directors connected therewith. They are found throughout the present Code and may be listed in brief as follows:

Fill vacancies in their membership unless in districts of the first class and independent districts where vacancies are filled by judges of the Court of Common Pleas. Sections 214, 215.

Make required reports to the State Superintendent. Section 317.

Levy and collect taxes to cover the budget requirements. Sections 402, 524, 537.

Fix the length of school term beyond the minimum. Section 403.

Organize safety patrols. Section 405.

Remove officers and employees after granting a hearing if desired. Sections 405, 406.

Visit schools regularly when no supervisor is employed. Section 408.

Elect a delegate to the state convention, send secretary to state secretaries' convention and pay expenses. Section 410.

Increase indebtedness up to 7% of the assessed valuation with the consent of the electors. Section 506.

Increase indebtedness to 2% of the assessed valuation for temporary loans. Section 506.

Appoint tax collectors where vacancy exists in second, third and fourth class districts. Section 547.

Prepare a budget of school expenditures. Section 563.

Provide the necessary grounds and buildings for those between the ages of six and twenty-one. Section 601.

Acquire and sell real estate. Section 602.

Have power of eminent domain. Sections 605, 608.

Purchase books, furniture and supplies. Section 701.

Attend annual county convention of school directors. Section 803.

Elect a county superintendent of schools and fix his salary if above minimum. Section 1105.

Elect teachers and supervising officials. Sections 1201, 2222.

Fix additional periods for the admission of beginners. Section 1403.

Provide for the free transportation of pupils. Section 1404.

Close school or schools and permit pupils to attend schools in other districts; petition State Council of Education for permission to open schools closed on account of low attendance. Section 1406.

Suspend or expel pupils after a proper hearing and previous preliminary action by teacher. Section 1411.

Enumerate annually all children between six and sixteen in the district. Section 1425.

Assign all pupils to school. Section 1426.

Enforce compulsory attendance laws through attendance officers and other qualified officials. Section 1432.

Provide for holidays and vacations. Section 1604.

Arrange and approve courses of study which shall conform to those arranged by the State Superintendent. Sections 1607, 1608.

Prescribe examinations for admission to high school. Section 1703.

Have power to confer degrees where such was done prior to the passage of the School Code (1911). Section 1715.

Establish joint schools or departments. Section 1803.

Grant and award scholarships in first class districts. Section 2202.

Consolidate schools. Sections 3701, 3704.

Enforce the vaccination law. Section 4601.

Build or purchase residences for principals, teachers or janitors in fourth class districts. Section 5901.

Union Districts and Joint Schools

The development of the "Union" district in Pennsylvania has been very slow. While it is a highly desirable form of organization, because of the tendency to equalize opportunity and burden, legislation does not encourage it in a practical way. In fact, where transportation is involved or a previously maintained joint vocational school exists, there may be actual reductions in state appropriations. But two "Union" districts

have been formed in the state—one at Honesdale, Wayne county, and one at Newport, Perry county.

There is, however, another type of organization which deserves mention at this point. The Code, Section 1801, provides that "school directors in any two or more school districts may establish, construct, equip, furnish and maintain joint elementary public schools, high schools, or any other kinds of schools or departments provided for in this act. The cost of establishing, constructing, equipping, furnishing, and maintaining such joint schools or departments shall be paid by the several districts establishing the same, in such manner and in such proportion as they may agree upon." The school district, however, does not lose its identity for fiscal purposes but renders the same financial accounting to the state as though maintaining a school within its borders.

The joint school comes about in most cases because the people of a community realize that the local unit is too small to support and operate the type of education they desire for their children and that only a pooling of resources can make this possible.

The development of these schools in Pennsylvania during the last decade is shown in Table VIII.

From seven joint schools in 1920-1921 to seventy two in 1930 for the entire state is quite a remarkable development. The organization of these schools, which usually must come about by a favorable vote on a bond issue in each district concerned, today represents little more than one to a county. Propositions involving a large number of districts are so difficult to bring about that the average number of districts involved in each joint school is but 2.2. A very few, indeed, have schools which are supported by three or four districts.

Legislation does very little to encourage the joint school except the vocational type or school with a vocational department when a $500 bonus is provided.[27]

The Rural Survey Committee of 1925[28] cited this need

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[27]Ibid., Section 3414.

[28]Educational Surveys, Commonwealth of Pa., Reports of Committees appointed by Gifford Pinchot—p. 350—Pa. Dept. of Public Instruction, 1925.

TABLE VIII

DEVELOPMENT OF JOINT SCHOOLS IN THE SELECTED PENNSYLVANIA COUNTIES AND IN THE STATE AS A WHOLE

Counties	1920–1921		1924–1925		1929–1930	
	Number of Joint Schools	Number of Districts Involved	Number of Joint Schools	Number of Districts Involved	Number of Joint Schools	Number of Districts Involved
Entire state	7	14	45	97	72	161
Adams....	0	0	1	3	1	3
Bradford..	3	6	3	6	3	6
Chester...	2	4	3	8	6	18
Clearfield..	0	0	1	2	1	2
Crawford..	1	2	4	9	4	9
Greene....	0	0	1	2	0	0
Pike.....	0	0	0*	0	0	0

*The Greene-Dreher joint school involves one district in Pike and one in Wayne county, school located in Wayne.

definitely and stated that steps should be taken to encourage its development, but to date nothing has been done about it. As a means of securing a larger unit the joint school is only partially effective in that the units are too small, no equalization of taxation is attained and progress is too slow.

(b) *Maryland Organization*

While Maryland has been to a greater or less extent traditionally a county unit state[29] there have been at various times in its early history attempts to organize systems of "dual" control.[30]

Nuttall states that "Maryland's county unit system began with the Constitution of 1864 and the law of 1865. Previous

[29]Nuttall, L. J., Educational Opportunity in County Units of Maryland and Utah.
Teachers College Contributions to Education, No. 431, 1931, p. 10.
[30]Ibid., Chapter III.

to that time there had been developed the idea of a public school system on a district basis."[31]

A group of school commissioners was appointed for each county for four years by the State Board of Education, each commissioner having charge of all of the schools and school affairs in his district.[32]

A reaction soon arose against this form of organization, where the control was vested in county authorities, and in a second Constitutional Convention in 1867, certain changes were made in the law, chief of which was the election of the county school commissioners by the election districts concerned. While these commissioners still were a corporate body, the "powers of general management and control were given to the Board of Schoolhouse District Trustees."[33]

Again in 1870 the State School Commission which had been established by the law just-mentioned was re-established and district boards were to be appointed by the county school commissioners. By further legislation in 1872, the entire school code was practically re-enacted. Nuttall suggests other changes in the functions and duties of both the county school commissioners and the district trustees, culminating in the law of 1916 when Maryland "finally achieved a county unit of administration."[34] "The story", he says, "is one of a contest between the county and district school authorities for the control of education. This power for school control was finally given to the county board of education, and the larger unit of local administration was thus established."[35]

Present Organization in Maryland

The general care and direction of educational matters in the state are given over to the State Department of Education. Article 2, Chapter I of the Maryland School Laws reads as follows:

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[31]Ibid., p. 10.
[32]Ibid.
[33]Ibid., p. 13.
[34]Ibid., p. 5.
[35]Ibid., p. 24.

"Educational matters affecting the state and the general care and supervision of public education shall be entrusted to a State Department of Education, at the head of which shall be a State Board of Education."

The chief executive officer of the Department of Education is the State Superintendent of Schools and the powers and duties which are prescribed by statute for this official are essentially those which belong to the Department.

Article 35 of Chapter 3A provides for the appointment of the following professional assistants in the Department:

1. An assistant state superintendent.
2. A supervisor of high schools.
3. A supervisor of rural schools.
4. A white supervisor of colored schools.
5. Other clerical and professional assistants authorized by the State Board of Education within the limits of Departmental appropriations.

The Maryland Public School Law[36] further provides for the appointment by the governor of a State Board of Education of seven members for terms of seven years each, with one regular appointment each year. Their duties and powers are described as follows in the March, 1925, Bulletin of the Maryland State Department of Education, page 6:

"Elect a State Superintendent of Schools who is the chief executive, the secretary and treasurer of the board.

Determine educational policies.

Enact by-laws which when enacted and published have the force of the law.

Enforce school laws by instituting legal proceedings, if necessary.

Decide controversies and disputes arising under the school law.

Direct and develop public sentiment for education.

Prescribe rules and regulations for
(a) Construction of school buildings.
(b) Grading and standardizing schools.
(c) Certification of teachers.
(d) Taking a biennial school census.

[36]Public School Laws of Maryland, 1927, Chapter 2.

Approve conditions upon which all diplomas and degrees are issued.

Prescribe, print and distribute courses of study.

Prescribe record and report blanks.

Prepare and publish annually a list of approved colleges and universities.

Require private educational institutions to report.

Prepare State public school budget.

Recommend to the Governor and the General Assembly bills making needed changes in appropriations and in school laws. Submit annual school report to the Governor and print it for general distribution.

Act as State Board for vocational education."

The State Superintendent is appointed by the State Board of Education for a term of four years.[37] His powers and duties are briefly stated by the above mentioned Bulletin, 1925, of the State Department of Education, page 7, as follows:

"Attend meetings of State Board of Education and of its committees, and act as secretary to the board.

Act as treasurer, under bond, of the State Board of Education.

Nominate all professional and clerical assistants of the State Department of Education.

Enforce school laws.

Cause the State Comptroller to withhold school appropriations for cause.

Execute educational policies.

Call and conduct conferences of school officials, supervisors and teachers.

Prepare and publish pamphlets to stimulate public interest and to promote the work of education.

Examine accounts of county boards of education.

Approve purchase or sale of school property.

Approve plans and specifications for school buildings and contracts for their construction.

Certificate all public school teachers, supervisors, attendance officers, and county superintendents.

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[37]Ibid., Chapter 3.

Prepare courses of study.

Furnish additional facilities for instruction in geography, history, science and kindred subjects.

Direct the taking of a biennial school census.

Prepare the annual school report and other reports.

Advise county superintendents of schools of unemployed teachers.

Approve appointments of county superintendents of schools and of county supervisory officials.

Approve formation of new school districts in unusual instances.

Approve summer schools.

Fix date of teachers' institutes, approve programs of work and attend same.

Certify quarterly amounts due City of Baltimore and the several counties from the General State School Fund.

Inspect colored industrial schools.

Inspect high schools.

Keep records of academic and professional preparation of teachers.

Pass on applications for teachers' pensions."

The County Board of Education

All school affairs in Maryland, with very few exceptions, are directly in charge of the county board of education. The county is the local autonomous unit for school control, and not an intermediate one. It is also the civil unit for other governmental purposes.

The size of the county boards of education varies with the counties. Anne Arundel county has five members, Baltimore, Carroll, Dorchester, Frederick, Montgomery, Somerset and Washington, six, and each of the other fifteen counties three. They are appointed by the Governor in each case and may be removed for cause by the State Superintendent with the former's consent. Terms are for six years,[38] with one appointment each year in certain counties and every two years in others.

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[38]Maryland School Laws, Chapter 2, Section 6.

A detailed statement of the duties and powers of this county board will aid in a clearer understanding of the function of the county as a unit. They are described in the March, 1925, Bulletin, previously cited, as follows:

"Elect a county superintendent of schools, who serves as chief executive, secretary, and treasurer of the board.

Hold title of school property.

Determine educational policies for county.

Prescribe rules and regulations for conduct and management of schools.

Promote interests of schools.

Control and supervise public school system through the county superintendent and his professional assistants.

Divide county unit into school districts.

Purchase or sell school grounds, school sites and school buildings.

Rent, repair, improve and construct school buildings.

Employ school architects.

Receive donations of school property.

Obtain title before building upon a site or occupying donated house.

Condemn for school sites.

Maintain jointly schools on or near dividing line.

Provide proper water closets or outhouses.

Consolidate schools.

Purchase and distribute textbooks and other supplies and equipment.

Appoint teachers and fix salaries.

Suspend or dismiss teachers.

Prescribe and distribute county courses of study.

Grade and standardize schools.

Have school census taken.

Prepare county school budget with and on the advice of the county superintendent.

Have accounts audited and published.

Report to the State Board of Education.

Have annual report prepared and published.

Cause American flag to be displayed.

Provide and equip office of county superintendent.

Provide transportation for county superintendent and his professional assistants.

Recommend teachers for pensions.

Consent to dismissing pupils or closing schools during school hours.

Appropriate library money.

Consent to use of school plant for certain purposes.

Inasmuch as the county superintendent is the executive officer of the county board of education and since almost all of its duties and powers are carried out with his recommendation, the position is a most important and responsible one. There are no local superintendents and very few positions which correspond to any great extent to the supervising principalship in Pennsylvania.

The county superintendent is appointed by the county board of education for a four year term. The appointment must have the approval of the State Superintendent, by which official he may also be removed for cause.

His powers and duties are also set down as follows in the Bulletin previously mentioned:

"Attend meetings of county board of education and of its committees and act as secretary to the board.

Act as treasurer, under bond, of the County Board of Education.

*Execute school laws, rules, regulations and policies.

**Intrepret school laws and by-laws.

**Decide controversies and disputes.

**Recommend repairs, purchase and sale of school sites and buildings, and employment of architects.

**Prepare plans and specifications for school buildings.

**Supervise remodeling and construction of buildings.

*Approve contracts.

*Issue provisional certificates.

**Nominate teachers for appointment, assign to positions, transfer or suspend for cause, recommend for promotion or dismissal.

*Organize institutes and reading centers.

*Visit schools, advise with teachers, counsel trustees.

*Strive to awaken public interest and to improve educational conditions.

*Grade and standardize schools.

*Cause examination of pupils to be held.

**Prepare courses of study.

**Prepare lists of books, supplies and equipment.

*Nominate professional, clerical, statistical and stenographic assistants.

Direct taking of school census.

Take initiative in preparation and presentation of annual school budget.

*Conduct correspondence, receive and verify all reports from district trustees, principals and teachers.

Deposit funds as treasurer to secure interest on daily balances.

Prepare annual report for county board of education and all other reports required of that board.

**Aid in organization of teachers' associations.

Authority to grant use of school plant for certain purposes.

**Consent to dismissing pupils or closing schools during school hours.

*Classify teachers' certificates.

*Consent to pupils attending schools in adjoining districts."

For the purpose of comparison the foregoing duties and powers have been marked with a single asterisk where they are *legally* delegated to the county superintendent in Pennsylvania and with a double asterisk where they are performed by that individual on *request* or in an *advisory* capacity. By virtue of the confidence of his school district boards and his demonstrated ability the Pennsylvania county superintendent thus performs *to a certain extent* nearly all of the functions of that same official in Maryland.

The School District in Maryland

The school districts are formed by action of the county board and are set chiefly for assignment and census purposes.[39]

The district board of school trustees consists of three members in each case, appointed by the county board for a three year term. They may be removed, for cause, by the same body. The powers and duties of this district board are limited and are defined by the March, 1925, Bulletin:

> "Consent to dismissing pupils or closing schools during school hours.
>
> Appoint a school janitor.
>
> Care of school property.
>
> Attend to incidental repairs.
>
> Receipt for school keys (Chairman).
>
> Visit schools, advise teachers, develop sentiment in support of schools.
>
> By unanimous vote, right to refuse to accept first two original assignments of teachers for any place.
>
> Right to file written charges requesting the removal of the principl teacher.
>
> Attend annual public exhibition, assist in judging and award prizes.
>
> See that water closets and outhouses are kept in proper condition.
>
> Authority to grant use of school plant for certain purposes.
>
> Cooperate with teachers in establishing school libraries and selecting library books.
>
> Encourage improvement of school buildings and grounds.
>
> Suspend and expel pupils."

(c) *Legal Regulations and Limitations Pertaining to the Phases of the Educational Organization to be Studied in Pennsylvania and Maryland*

(*1*) *Taxation*

The tax levying body for school purposes in Pennsylvania is the local school board. Property taxes are levied annually in mills on the dollar.

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[39]Maryland Public School Laws, 1927, Chapter 4, Sec. 45.

In districts of the first class, of which there are two in the state, viz., Philadelphia and Pittsburgh, taxes are levied on or after the first Monday in November and before the first Monday in December following, for the fiscal year beginning January first.[40] The amount to be secured from taxation must be sufficient, with all moneys received from the commonwealth, to pay the minimum salaries and increments of the teaching and supervisory staff and contributions to the teachers' retirement system, the amount necessary to pay the interest of and retire the principal at maturity of any existing indebtedness, and an amount "to pay all the other expenses and requirements of said school district, which amount for the tax years one thousand nine hundred thirty and one thousand nine hundred thirty one shall be equivalent to not less than two and three-quarters nor more than three and one-quarter mills on the dollar" and for the year following and thereafter not less than three nor more than three and one-half mills on the dollar "of the total assessment of all property assessed and certified for taxation therein."[41] All school and municipal taxes in these districts are assessed upon the same basis.

In school districts of the second, third and fourth classes, taxes are levied annually during the month of May for the fiscal year beginning the first Monday in July. Section 537 of the Code provides that "in school districts of the second class (the tax) shall not exceed twenty mills on the dollar and in school districts of the third and fourth class shall not exceed twenty five mills on the dollar, on the total amount of the assessed valuation of all property taxable for school purposes therein: Provided that each school district of the second, third or fourth class may also collect a per capita tax on each resident or inhabitant of such district over twenty one years of age, as herein provided."

In districts of the second class, the assessable basis is the amount of real and personal property used for city tax purposes. In third class districts lying within or coterminus with a city of the third class, the basis is again the same as used for city

[40]Pennsylvania School Laws, Secs. 523, 524.
[41]Ibid.

purposes, but in all other districts of the third and fourth class the school taxes are levied upon all the property upon which county taxes are levied and assessed.[42] Section 543 provides that the per capita tax when levied must be not less than one nor more than five dollars upon each resident or inhabitant over twenty one years of age. Section 1210, however, known as the Edmonds Act, amends the former sections as follows: "Boards of school directors of school districts of the second, third and fourth classes are hereby authorized and directed to levy annually a tax on each dollar of the total assessment of all property assessed and certified for taxation therein to pay the minimum salaries and increments of the teaching and supervisory staff provided for herein. Said tax shall not be invalidated or affected by reason of the fact that it may increase the total annual school tax levy of any school district beyond the millage fixed or limited by law: Provided, that in districts of the fourth class, the tax herein authorized, together with all other school taxes levied in the district, shall not exceed thirty five (35) mills on each dollar of the assessed valuation thereof."

In Maryland the county is the local taxing unit. The county board of education is required to prepare annually a detailed budget showing the amounts required for the ensuing year, after deducting all revenues anticipated from the state, and showing the amount which will have to be raised by a county tax. This budget is required to be submitted in writing to the county commissioners "at least twenty days before the usual date for levying county taxes" and a copy must also be submitted to the State Superintendent of schools. Provision was also made in 1920, that "the amount requested in the annual budget of the County Board of Education for current repairs, furniture in old buildings, maintenance and support of the schools, for the succeeding school year and to be raised by local taxation shall not hereafter in any year be less than a minimum tax, levied and collected, of 34 cents on each one hundred dollars ($100) of the assessable property in the county."[43]

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[42]Ibid., Secs. 538, 539, 540.
[43]Public School Laws of Maryland, Chapter 4, Par. 56.

The same section also provides that any excess rate above forty cents ($.40) must be specifically sanctioned by the board of county commissioners. All taxes levied for school purposes are so indicated on the tax bills and are collected by the county treasurer in the same manner as all other taxes. Taxes so collected for school purposes are required to be paid monthly to the treasurer of the county board of education in as nearly equal amounts as possible, beginning on or before the tenth of October each year.[44]

Chapter 19 of the School Laws prescribes that money appropriated for school purposes shall be known as the General State School Fund. It prescribes the purposes for which money shall be appropriated from this fund and provides further that "the board of county commissioners of each of the several counties in order to share in the Equalization Fund shall levy and collect an annual tax for the schools of not less than sixty seven ($.67) cents on each one hundred dollars ($100) of assessable property, exclusive of the amount levied for debt service and capital outlay for public schools."

In certain counties considerable revenue is also derived from tongers licenses, one half of which is required to be paid to the county board for school use.[45]

In addition to the amounts raised locally for school purposes, paragraph 205, Chapter 19, provides that "a State tax of fifteen cents on each one hundred dollars of taxable property throughout the State shall be levied annually for the support of free schools", said tax "to be distributed by the (State) treasurer to the board of school commissioners of the City of Baltimore and the several counties."

Power is also given in paragraph 191, Chapter 16, to the Mayor and City Council of Baltimore to levy and collect such taxes as may be necessary for school purposes.

Further details concerning the legal aspects of assessment and taxation in both states will be described in a later chapter devoted to these subjects.

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[44]Ibid.
[45]Ibid., Article 72.

(2) *Borrowing Capacity*

Funds for capital outlay are in the great majority of cases in Pennsylvania secured by borrowing on long term bonds not to exceed thirty years. Local school districts are authorized to borrow either for temporary purposes or otherwise by a two thirds vote of the board of directors an amount not to exceed two per cent of the assessed valuation.[46] After the assent of the electors has been secured by an election properly held the total indebtedness of a school district may be increased to an amount not to exceed seven per cent (7%) of the assessed valuation.[47]

Borrowing for temporary school purposes is not a common occurrence in the counties of Maryland, due largely to the efficiency of the professional budgeting and financing. At occasional times when state appropriations are delayed such action becomes necessary but there are no provisions in the school law governing such action.

Funds for capital outlay in Maryland are secured both by taxation and the issuance of bonds. Bond issues must be authorized by a special act of the state legislature and a popular referendum may or may not be required, depending upon a petition presented by ten per cent of the voters of the county concerned.[48] No limitation is set upon bonded indebtedness but the average in 1930 for the twenty three counties was 1.6 per cent and Baltimore City 1.8 per cent. The range was from 0 to 2.8 per cent.[49]

(3) *The Transportation of Pupils*

Complete authority to transport children to and from school is given to any board of school directors in Pennsylvania by Section 1404 of the School Code which reads in part as follows:

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[46]School Laws of Pennsylvania, Sec. 508.
[47]Constitution of Pennsylvania, Article IX, Sec. 8.
[48]Personal letter from Maryland Department of Legislative Reference, Mr. H. E. Flack, Executive, under date of Aug. 18, 1931.
[49]Sixty Fourth Annual Report-Table 177, page 271.
Maryland State Department of Education, 1930.

"The school board of directors in any school district in this Commonwealth may, out of the funds of the district, provide for the free transportation of any pupils to and from the public schools."

Reimbursement, however, is not paid to a district for money expended for transportation, except as specifically provided for by law. The cases under which reimbursement is made are as follows:[50]

"In any district of the fourth class, or in a township which is a district of the third class, elementary school pupils who reside within that part of the school district last served by any elementary school closed since May 18, 1911, or within a district all of whose schools have been closed, or who are assigned to a training school of a State Normal School, and reside one and one half miles or more from the school to which they are assigned."

Where there is no public school within two miles by the nearest highway and the board of directors furnishes free transportation to the child or children concerned. This does not apply to children over 16 years of age.

Where transportation is furnished to consolidated schools, both elementary and approved junior high schools, to children residing more than one and one half miles from the consolidated school.

Reimbursement by the state is made only after the type of transportation, driver, vehicle and contract have been approved by the county superintendent of schools and the Department of Public Instruction. Such reimbursement is made in the same manner and to the same proportionate extent as on teachers' salaries as follows:

Districts with a true valuation per teacher of assessable property of $50,000 or less, seventy five per cent of the amount expended for transportation during the previous year; those with more than $50,000 to $100,000, sixty per cent, and more than $100,000, fifty per cent. In case the district owns the conveyance, fifteen per cent may be added for depreciation and repairs but the state's share can not exceed $100 per vehicle per year. Neither can the state's share exceed one dollar ($1.00) per day for each day the pupil is transported. Districts which receive seventy five and sixty per cent of the cost from the state can not receive more than $4000 in any one year for this purpose and those receiving fifty per cent not more than $3000.[51]

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[50]Pennsylvania School Laws, Secs. 1404, 1406, 1418, 3704.
[51]Ibid., 1406, 3705.

In Maryland, authority is given to the county board to transport pupils to and from consolidated schools by the following provision:

> "The County Board of Education shall consolidate schools whenever in their judgment it is practicable, and arrange, when possible without charge to the county, and shall pay, when necessary, for the transportation of pupils to and from such consolidated schools."[52]

Provision is also made for transportation after closing a school:

> 'Whenever the average daily attendance in any school for any two consecutive terms is less than twelve pupils the said school may be closed by the County Board of Education, and transportation provided in the discretion of the board for the pupils."[53]

Transportation of deaf and blind children in Maryland may be carried on at public expense where it is proved that the parents are financially unable to bear such costs.[54]

Reimbursement is provided for through the equalization fund since transportation expenditures may be included in calculating the cost of the minimum program for the county.[55]

(4) *Supervision*

Supervision of two kinds is provided for in Pennsylvania; first, on a county basis by the county superintendent and his assistants; and secondly, on a local basis by district superintendents, supervising principals and their staffs.

Previous citations from the School Code have already been given in this chapter showing the authority for the organization of the county superintendent's office and listing supervision as one of the duties of those officials. County superintendents are allotted assistant superintendents as previously indicated.[56]

Provision is also made that the school directors at any convention for electing a county superintendent may authorize

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[52]Maryland Public School Laws, Chap. 4, Par. 50.
[53]Ibid., Chapter 7, Par. 77.
[54]Ibid., Chapter 21, Par. 232.
[55]1930 Report, Maryland State Dept. of Education, p. 153.
[56]See page 40

the appointment of additional assistants to these provided for in the act.

Salaries of county superintendents under Section 1210 of the 1929 School Code are based upon the population of the county as follows:

TABLE IX

CLASSIFICATION OF MINIMUM SALARIES OF COUNTY SUPERINTENDENTS IN PENNSYLVANIA

Population of County	Minimum Salary of Co. Supt.
Less than 20,000	$3,000
20,000 and more, but less than 45,000	3,500
45,000 and more, but less than 150,000	4,000
150,000 and more	4,500

The minimum salary of all assistant county superintendents is $3000.

The state pays directly the entire amount of the above mentioned minimum salaries. However, any convention of school directors may vote larger salaries than the minimum prescribed but such amounts will be deducted from the state appropriations due the districts, in proportion to the number of teachers employed.

Sections 1121 and 1130 of the Code provide that each county and assistant county superintendent shall receive an amount not to exceed $500 annually for expenses actually incurred.

Districts of the third, second and first class are entitled and directed to employ a district superintendent, except that for districts of the third class the matter is discretionary with the board of school directors. In case they do not employ such an official,[57] however, they remain under the supervision of the county superintendent.

Provision is also made for the employment of associate and assistant district superintendents in districts of the first class at such salaries as the board of school directors may determine.[58] Similar provision is made for the employment of

[57]Ibid., Sec. 1133.
[58]Ibid., Sec. 2224.

assistant district superintendents in districts of the second and third class, no reimbursement, however, being made on this account.

Minimum salaries of $3,500 per year are prescribed for district superintendents in districts of the third class and $5,000 in districts of the second class. Salaries are to be paid out of the funds of the district, reimbursement being made by the state on a high school teacher basis. Terms of district and assistant superintendents in second and third class districts are for four years.[59]

The superintendent in a first class district may be elected for a term not to exceed six years.[60]

The supervising principal is also an important person in the Pennsylvania supervisory set-up. Any district of the third or fourth class not employing a district superintendent may employ for a term not exceeding three years, a supervising principal, certified in accordance with standards set up by the State Council of Education.[61] No limitations are set as to the number of additional supervising officials, such as principals, subject supervisors, etc., except that they be properly certificated.

Supervision in the elementary schools in Maryland is altogether on a county basis. The county superintendent is the chief responsible officer, although the assistant state superintendent and the assistant state supervisor spend a considerable amount (about two thirds) of their time in the field visiting teachers at work and attending teachers' meetings.[62] The professional assistants available for supervision in the counties consist of assistant superintendents (certain counties only) and supervising and helping teachers, allotted as follows:[63]

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[59]Ibid., Sec. 1134.
[60]Ibid., Sec. 2224.
[61]Ibid., Sec. 1214.
[62]Administration and Supervision in Maryland Counties in 1927-1928, Maryland School Bulletin, Vol. X, No. 10, p. 8, April, 1929.
[63]School Laws of Maryland, Chapter 4A, Sec. 145.

TABLE X

DISTRIBUTION OF WHITE SUPERVISING AND HELPING TEACHERS REQUIRED IN THE MARYLAND COUNTIES

Number of White Elementary Teachers in County	Number of Supervising or Helping Teachers Required
Less than 80	1
80 but less than 120	2
120 but not more than 160	3
More than 160	1 for each 50 teachers or fraction thereof

Qualifications for assistant superintendents and supervising teachers are the same while a helping teacher may be certified on academic and professional training one year in length.[64] Special certification for supervision is also required of all special supervisors of physical training, music, fine and applied arts, domestic art and science, manual or industrial training, or agriculture,[65] which are employed in certain counties only.

High School supervision is almost entirely in the hands of the state,[66] three supervisors being employed for that purpose.

Counties which maintain a colored industrial school, approved by the State Superintendent, receive an annual appropriation of fifteen hundred dollars, one half of which is to be used for a colored supervisor of colored schools, which the said county is directed to appoint.[67]

(5) *High School Attendance and Tuition*

There are legally recognized in Pennsylvania five classes of high schools;[68]

(1) Six year high schools, (2) Four year high schools, (3) Three year high schools, (4) Two year high schools, (5) Junior high schools.

The number of high schools existing in the selected Pennsylvania counties for the year ending July, 1931, is shown in Table XI.

[64]Ibid., Ch. 8, Sec. 85.
[65]Ibid.,
[66]Ibid., Ch. 3A, Sec. 35.
[67]School Laws of Maryland, Ch. 20, Sec. 213, and By-Laws, 45.
[68]School Laws of Pennsylvania, Sec. 1701.

TABLE XI

NUMBER OF HIGH SCHOOLS IN THE SELECTED PENNSYLVANIA COUNTIES FOR THE YEAR ENDING JULY, 1931

Counties	Classification of high schools				
	6 yr.	4 yr.	3 yr.	2 yr.	Junior
Adams	–	6	3	–	–
Bradford	5	5	5	4	–
Chester	5	8	2	4	2
Clearfield	1	14	1	2	–
Crawford	1	15	5	4	–
Greene	–	9	–	–	–
Pike	2	–	–	1	–

Provision is made for the admittance to high school of all qualified children under twenty one years of age, resident within the district, and children from other districts, who have been properly certified by the county superintendent of schools and accepted as qualified by the high school.[69] Section 1707 further specifies that children living in a district not maintaining a high school may attend the nearest or most conveniently located high school in another district and that those who live in a district maintaining a high school, whose program of studies terminates before the end of the twelfth year, may attend the nearest or most conveniently located high school in another district for the completion of their high school work. Pupils may also attend a vocational school or vocational department, although it is more remotely located than a regularly approved high school of another type[70] either within or without the district in which they reside.

For all such pupils above described, after the consent of the board of directors maintaining the high school has been secured, the district in which the pupil resides is responsible for the tuition. All such tuition costs must be determined,

[69]Ibid., Sec., 1703, 1707.
[70]Ibid.,

using the figures for the previous school year on the basis of the average daily attendance for the entire year, but before the costs are actually computed the district's share of state appropriation on account of high school teachers salaries must be deducted. The following items are to be used in computing the per capita cost:

1. Instruction (Salaries of teaching and supervisory staff and attendance at institutes.)
2. Text books and school supplies.
3. Fuel, light, water and janitor service.
4. Ten per cent (10%) of above items may be added.[71]

Section 1709 provides also that where a child, having completed the elementary course, resides more than three miles from the nearest (by the public road) high school in his own district, he may, unless free transportation be furnished, attend any more convenient high school in another district, without the consent of the board of directors of the district in which he resides and said district shall be liable for the tuition, determined as specified above.[72]

In Maryland, two groups of high schools are recognized by the State Board of Education, designated as first group and second group. The requirements of each group are as follows:[73]

Group One

(a) Enrollment of not less than thirty bona fide pupils.
(b) Average daily attendance of not less than twenty-five pupils.
(c) Employ not less than two full time academic teachers for high school work.
(d) Provide an approved four-year course of instruction for not less than one hundred and eighty actual school days per year.

Group Two

(a) Enrollment of not less than fifteen bona fide pupils.
(b) Average daily attendance of at least twelve pupils.
(c) Employ one full time academic teacher.
(d) Provide an approved two-year course of instruction for not less than one hundred and eighty school days per year.

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[71]Ibid., Secs. 1707, 1708, 1716.
[72]Ibid., Sec. 1709.
[73]Maryland Public School Laws, Ch. 17, Par. 193.

The number of approved high schools of both types in the selected Maryland counties for the year ending July 31, 1931, is shown in Table XII.

TABLE XII

NUMBER OF APPROVED HIGH SCHOOLS IN THE SELECTED MARYLAND COUNTIES FOR THE YEAR ENDING, JULY 31, 1930*

Counties	Number of Approved High Schools					
	White			Colored		
	Total	Group		Total	Group	
		1	2		1	2
Allegany	11	10	1**	1	1	–
Baltimore	8	6	2	–	–	–
Calvert	3	3	–	1	–	1
Carroll	11	11	–	1	–	1
Frederick	8	8	–	1	1	–
Garrett	6	5	1	–	–	–
Washington	6	6	–	1	1	–

*Data adapted from Table 101, page 150, 1930 Report of Maryland State Department of Education.
**Junior High School.

Paragraph 114, Chapter 9 of the Maryland School Laws, specifies that "all white youths between the ages of six and twenty one years shall be admitted into such public schools of the State, the studies of which they may be able to pursue,—" and paragraph 116 of the same chapter states that "children living remote from the school of the district in which they reside may attend school in an adjoining district, with the consent of the county superintendent of schools."

In paragraph 200 of Chapter 18, the statement is found that "It shall be the duty of the County Board of Education to establish one or more public schools in each election district for all colored youths, between six and twenty one years of

age to which admission shall be free"—"provided the colored population of any district shall in the judgment of the County Board of Education, warrant the establishment of such a school or schools." Obviously this does not guarantee high school opportunities to colored children.

Attendance at high schools in an adjoining county is covered by By-Law 11 to paragraph 48, Chapter 4:—"For each high school pupil attending school in an adjoining county, the County Board of Education of the county in which the child resides shall pay to the County Board of Education of the adjoining county sixty per centum of the average cost per pupil belonging in high schools of all the counties of Maryland for the preceding school year, as certified to by the State Superintendent of Schools. Expenditures for general control and capital outlay shall not be included in calculating the cost per pupil.

Should the two county boards of education fail to agree in determining the support each should give to such school, the State Superintendent of Schools shall decide."

Paragraph 48 of the chapter above cited states that "Schools on or near the dividing line of two counties shall be free to the children of each county, and the County Board of Education of the respective counties shall have the power jointly for the maintenance of said schools."

Summary

This chapter has through a brief presentation of evidence accepted the fact that school authority as it exists in this country is not local but delegated by the state and that public education itself is truly a function of the state. It has traced the constitutional mandates and provisions in Pennsylvania and in Maryland which brought about the establishment of a system of free public schools and which have led to their present development.

For Pennsylvania, the original statutory provision to this end is found in the provisional constitution of 1776, followed by that set up in 1790. The free public school system, itself,

however, had no real beginning until 1834. It was in the constitution which followed in 1873 that there is found the basis of the present State School Code.

The Department of Public Instruction is the branch of state government specifically charged with the administration of the provisions of the above mentioned Code. The Superintendent of Public Instruction, appointed by the Governor for a term of four years, is its executive officer. The chapter has outlined in detail his powers and duties.

The State Council of Education, consisting of nine members appointed by the Governor, with the State Superintendent as chief executive officer, occupies an important place in the educational system. Its duties and powers as stated are far reaching.

The county as an intermediate administrative unit has gone through five definite stages of development. The county superintendent is the directing administrative and supervisory officer and acts chiefly as an agent of the state in a range of duties and powers not particularly wide. Professional assistants are allotted him on the basis of the numbers of teachers under his supervision. District superintendents may be employed by school districts in civil units with a population of 5,000 or more and have powers and duties but slightly more extensive than those of the county superintendent.

The school district, the local antonomous school unit, is, in general, coterminus with other governmental units. Four regular classes of school districts exist based entirely upon total population. There are, however, two special classes (independent and union) which may be set up under certain conditions by court order and popular vote respectively. In January, 1931, there were 2,587 school districts of the four regularly designated classes in the state.

School affairs are managed by a board of directors elected by popular vote in all districts except those of the first class and those of independent classification, in which cases they are appointed by the Courts of Common Pleas. The powers and duties of these local boards have been stated in detail in the chapter and are found to be quite broad.

The Union District of which there are but two in the state has been set up as an attempt to secure a larger administrative unit. Joint schools have also been established as a partial means to this end. There have grown from seven in 1920-1921 to 72 in 1929-1930.

This chapter has pointed out that while there have been at various times in Maryland attempts at dual control, it has been traditionally a county unit state. The direction of all educational matters in the state is in the hands of the State Department of Education at the head of which is set up a State Board of Education. Here, as in Pennsylvania, the State Superintendent of Schools is the executive officer.

This State Board of Education elects the State Superintendent of Schools but in other respects has powers and duties quite similar to the Pennsylvania State Council of Education. The Superintendent acts as treasurer of the State Board of Education, enforces the school laws and has a fairly large number of general and specific powers listed in the chapter.

Since the county in Maryland is the local autonomous unit for school control we find in each county a board of education with a very wide range of definite responsibilities and duties. These county boards are of varying size, with the members appointed by the Governor for six year terms. In their powers and duties they are very similar to the local district boards in Pennsylvania.

The county board in each case elects the county superintendent for a four year term. He acts as the Board's executive officer with far reaching powers. These have been listed in detail and those performed either by legal authority or in an advisory capacity by the county superintendents in Pennsylvania have been so indicated. Local districts in Maryland are chiefly for census purposes and while each district has three trustees appointed by the county board their powers and duties are exceedingly limited.

The tax levying body in each state is the county or district board of education as the case may be. The methods of levying taxes have been described in detail for each district in Pennsylvania and the limitations set up. School taxes in

Maryland are levied by the county commissioners after approval of the budget received from the county board of education. Practically, there is no limit to the rate of tax levied.

The chapter has also shown that the borrowing capacities of school districts in Pennsylvania may not exceed two per cent of the assessed valuation without a vote of the people and in no case exceed seven per cent even with such authorization. Bonds may be issued accordingly for periods not to exceed thirty years. School bond issues in Maryland must be authorized by the state legislature. A popular referendum may or may not be required. No limitations are set upon bonded indebtedness.

The district board of education in Pennsylvania and the county board in Maryland have authority to transport pupils to and from school. State aid is given for this service in many situations in Pennsylvania while in Maryland transportation expenses may be used in calculating the cost of the minimum program.

Supervision in Pennsylvania is provided for through the county superintendent and his assistants, district superintendents, their associates and assistants, supervising principals and other local general and subject supervisors. In Maryland, all supervision except in the separate school district of Baltimore City is provided by the county office through the county superintendents, a few assistant superintendents and a large number of supervising and helping teachers.

The chapter has also described in detail the legal provisions concerning non-resident high school attendance and the payment of tuition charges for the same.

CHAPTER IV

Financial Status—Ability, Effort and Need of the Units of Administration

There is necessary for a complete understanding of the functions performed by any educational units, an analysis of the ability to support education of the units themselves, measured with the best measure available. Coincident with this is the problem of effort as an indication of performance, to a certain extent volitional. It seems fair to assume that that type of organization and administration is most efficient which stimulates a reasonably high and a reasonably constant relationship between these two factors.

To this end, therefore, the purpose of this chapter will be to ascertain as far as reliable data are available, the relative abilities of the various local units of administration in the selected Pennsylvania counties to support education and to note the abilities of each of these counties as a whole in both Pennsylvania and in Maryland upon the same basis. It is also proposed in this part of the study to investigate the efforts the counties in both states are making to support the educational program, to note the relationships between effort and ability and the variations in need pertaining thereto.

Ability

The attempts which have been made to accurately measure the ability of the various administrative units to finance their needed educational programs have been many and varied.

The term ability itself is more or less a relative one. Morrison[1] defines it as "the fiscal capacity which a district has to maintain schools as compared with the capacity of another district." It is a measure which is absolutely necessary of

[1]Morrison, H. C.: School Revenue, p. 171.

attainment before state subsidies can be justly and fairly distributed. The difficulty, of course, lies in the number of variables which are present among school units of all types and in the difficulty of representing them objectively.

Morrison[2] further states that, "Ability is expressed by some derivative of the ratio RESOURCES: LOAD." To this statement there can be few objections. The problem is in properly representing and utilizing the variables which must be considered in obtaining the derivative.

Swift[3] writes that,

> "The ability of a state, a county, or a district to provide schools does not depend chiefly upon its total assessed valuation. If two districts each have a valuation of $20,000, and one of these districts has to educate 50 children, and the other 150 children, it is easy to see that it would be very unfair to consider them equally able to provide schools of the same standard. One of these districts ought to provide at least two teachers, the other, at least six, allowing twenty-five pupils per teacher. For this reason, it is customary to take its wealth per child as the measure of the ability of a state, a county, or a school district to provide schools. We may regard the wealth of the state, county, or district as a bank account upon which it may draw for the support of public schools, and the wealth per child as the bank account upon which it may draw for the education of each child."

Other authorities upon finance have attacked the problem in a somewhat different way. Writing in the New York Survey, Updegraff[4] states that, "The equalized valuation per teacher gives an accurate measure of the ability of the various school districts in the State to support their schools." This principle is the one upon which the State of Pennsylvania bases her plan for the distribution of state subsidies. These reimbursements for teachers' salaries, for example, are essentially as follows:

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[2]Morrison, Henry C., "Financing the Rural School", p. 230 National Society for the Study of Education, 30th Year Book.

[3]Swift, F. H. and Del Plaine, F. K., "Public School Finance in Minnesota", pp. 9-10. Report prepared for the Minnesota State Education Association, 1922.

[4]Updegraff, Harlan, "Rural School Survey of New York State—Financial Support", p. 78.

(1) In districts of the first class—for each member of the teaching and supervisory force, twenty five per cent of the annual minimum salaries prescribed for elementary teachers.

(2) In districts of the second and third class—for each member of the teaching and supervisory staff, thirty five per cent of the annual minimum salaries prescribed for elementary teachers in such districts.

(3) In districts of the fourth class, fifty per cent of the annual minimum salaries prescribed for teachers in those districts.[5]

The following proviso in brief, however, is made in relation to all of the foregoing:

> In districts of the first, second and third classes, those with a true valuation per teacher of $50,000 or less of assessable property shall receive seventy five per cent of the salaries as previously described, those with a true valuation of more than $50,000 and not more than $100,000, sixty per cent. The same differentiation is also made in the case of fourth class districts but applies to both elementary and high school teachers.[6]

Much dissatisfaction, however, has arisen with this plan of recognizing differences in ability. It is felt that the intervals for the differentials are too large, that there are serious difficulties in arriving at true valuations under the present assessment system and that the measure is at least quite likely not to be a measure of ability at all. The number of teachers employed is rather an indication of *performance*. It may or it may not be a measure of either ability or need, because on one hand a district may not be employing all the teachers that it should, or on the other, it may be employing more that it can properly afford. Then, too, unless the teacher as the unit is weighted, it means little. There are also involved a number of other factors than those mentioned, as:

(a) Total population.

(b) Number of adults in relation to the number of children.

(c) Number of children to be educated at the time the measure is taken and the number below the compulsory education age and between the upper limit of this period and maturity.

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[5]School Laws of Pennsylvania, Section 1210.
[6]Ibid.

(d) Density of population.

(e) Income.

(f) Cost of living.

The formula that would take into account all of these factors, therefore, would be the most valid one by which ability to support education could be measured. Unfortunately, however, reliable data on several of them are either difficult or impossible of attainment and application. Particularly is this true in the case of income, for which accurate figures are not at present obtainable for the small district units.

Morrison[7] cites certain further facts which make this measurement difficult:

> "1. Income from property taxed may be almost the only income in the district.
>
> 2. There may be an immense amount of income in addition to income from the property taxed.
>
> 3. The income of local taxpayers may nearly all be derived from the property which is taxed, but still may be greatly out of proportion to the value of the property.
>
> 4. In some districts, the school support constitutes nearly all the local tax obligation, while in others it is only a minor factor.
>
> (This item will be discussed and illustrated in a later chapter in this study.)
>
> 5. A given aggregate valuation may be the base of taxes which are very largely thrown off by the tax-payers, while another may represent taxes which in their nature cannot be shifted."

In a study published several years ago, Clark[8] has developed a formula which attempts to take into account the effect of the varying numbers of children in different communities to develop a ratio which may be combined with wealth, or income, to obtain a very significant measure of the ability to support education.

While others have suggested that the ratio of the number

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[7]Morrison, H. C., "Financing the Rural School", p. 230.

[8]Clark, H. F., "The Effect of Population upon Ability to Support Education", Vol. II, No. 1, Bulletin of the School of Education, Indiana University, Bloomington, Indiana, 1925, p. 29.

of children to ability to support education is a direct one, Clark maintains that the true situation is more nearly as follows:

". . . . beginning with a reasonable number of children, doubling that number reduces to one fourth the amount of education that can be supplied for each child."[9]

He maintains that while all of the following causes operate to produce this result, the first alone is sufficient to account for the relationship which is therefore an under rather than an over-statement:

> "1. The additional children have to be fed and clothed.
>
> 2. A larger percentage of children makes a larger percentage of non-producing people.
>
> 3. A larger percentage of children makes a smaller percentage of people in the most productive ages.
>
> 4. In a community having a small number of children, savings will be larger, and this will soon have a cumulative effect.
>
> 5. The better training provided will increase efficiency and production and have a large cumulative effect."[10]

It was necessary, of course, to accept some standard ratio representing the number of adults per child but first the point must be set at which the child becomes an adult. The author maintains that since the age chosen would affect the ratio about equally in different communities, it would make little difference in the results of the formula. He concludes that, "Considering the age at which the most accurate figures would probably be available and for other reasons, twenty was finally chosen as the dividing point between children and adults."[11] This is especially significant for Pennsylvania because the law permits a child to attend the public schools until he is twenty one years of age.[12]

From this point the standard ratio of two adults to one child is established, based upon the fact that in a stable population, two thirds of the population would be twenty one years

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[9]Ibid., p. 20.
[10]Ibid., pp. 19-20.
[11]Ibid., p. 22.
[12]Pennsylvania School Laws, Section 1401.

of age or over.[13] This, then becomes the basic ratio for the formula which is given as $\frac{x^2}{4}$ and in which X stands for the ratio of adults to children or the number of adults to each child. The steps in its computation are summarized as follows:

1. "Obtain the number of adults to each child in the community that is being studied.
2. The 'standard' ratio of adults to children is $\frac{2}{1}$.
3. Because the square of the number is a better indication of the manner in which differences in population affect ability to support schools, the 2 is squared, making 4.
4. Four (4) becomes the unit of comparison or measurement, i. e., the S. A. U. or Standard Ability Unit.
5. The ratio in step one is squared and compared with 4.
6. The effect of the ratio of adults to children upon ability to support schools is measured by comparison with this Standard Ability Unit."[14]

As an illustration of the use of the formula, its application to three districts in Adams county, Pennsylvania is cited as follows:

1 District	2 Total population	3 Number above 21	4 Number below 21	5 Number of adults per child (X) Col. 3 ÷ Col. 4 = X	6 Standard Ability Units $X^2 \div 4$
Abbottstown Boro.	457	273	184	1.48	.55
East Berlin Boro..	790	528	262	2.02	1.02
Littlestown Boro..	2001	1329	672	1.98	.98

In the light of the foregoing discussion, there is considerable difference in the problem of providing educational opportunities for their children to the citizens of these three districts. Given the same or approximately the same per capita wealth, it will be much easier for East Berlin Borough and Littlestown

[13]Clark, loc., cit.
[14]Ibid., p. 21.

Borough to support a minimum program or a program above the minimum than it will be for Abbottstown.

However, conditions of wealth between districts both large and small vary widely and these must in some way be combined with the Standard Ability Units in order to secure a comparative measure of the real ability. For this purpose Clark has used per capita wealth in terms of assessed valuation.[15]

In comparing the relative ability of the states to support education, Norton[16] employed three economic units; wealth, total income and current income as the measure of resources. King[17] in a recent study has used "wealth per capita" based on the "population of 1927" as the factor to be combined with the Standard Ability Units From these he developed an "Index of Ability" by which the ability of any state may be compared with that of the United States as a whole.

Whether the most valid measure is that of wealth calculated upon the valuation of taxable property or upon income is debatable. For a practical measure the basis of taxation should probably be used. For a more nearly absolute measure, per capita income is undoubtedly best.

The chief difficulty in the latter situation lies in the inability to secure reliable data. In the case of small districts this is altogether impossible. Figures from the federal income tax data are helpful but not all inclusive. Therefore, since the chief basis of taxation in both Pennsylvania and Maryland is property valuation, this has been accepted in this study. In Pennsylvania, however, the corrected, or so called "true", valuation per adult has been used as determined from figures submitted annually under affidavit by the secretary of each school district, and used by the state for the distribution of subsidies. These "true" valuations have been determined from the assessed valuations for 1929-1930 and the average of the rates of assessment for that year and the two years preceding. Admittedly, there are inaccuracies in these figures, but it is

[15]Ibid., p. 24.

[16]Norton, John K.: The Ability of the States to Support Education, p. 64.

[17]King, LeRoy A., "Factual Data Relating to the Ability of Pennsylvania to Support Education", p. 7, Pennsylvania State Education Association, Harrisburg, Pa., 1928.

highly probable that they much more nearly represent the true situation than do the assessed valuations, and it is not the province of this study to discover some more effective means of ascertaining the true value of property taxable. For Maryland, however, the assessed valuations as given by the State Tax Commission are used. There is much evidence that these figures are rather close to the real valuations. Further justification for this procedure in the case of both states as well as complete details of the assessment system will be discussed in the chapter on Taxation.

In recent correspondence, Dr. Clark has given his approval to the use of "true" valuation as a unit for substitution in the formula, writing[18] as follows under date of January 6, 1931:

> "I should say most emphatically that it would be far better to use the true valuation of property than to use the assessed valuation. You can, doubtless, make a very satisfactory case for using the true valuation back of each adult as a figure to substitute in the formula. . . . The whole attempt is to obtain an expression that will give proper weight to the total economic burden of a large number of children in a community. For all parts of the purposes, the formula seems to be satisfactory."

To carry the Adams County illustration farther, combining the Standard Ability Units with "true valuations" per adult we obtain the results below:

1 District	2 Number of adults per child (X)	3 Standard Ability Units $X^2 \div 4$	4 Real valuation per adult in hundreds of dollars	5 Ability Col. 3 × Col. 4
Abbottstown Boro....	1.48	.55	11	6.05
Biglerville Boro.....	1.78	.79	11	8.69
East Berlin Boro.....	2.02	1.02	12	12.24

[18]Clark, H. F., Personal letter to author.

Thus Abbottstown will have but one half the ability of East Berlin and approximately three quarters of the ability of Biglerville. If this is compared with the "true valuation per teacher" as used by the state, the figures are 74, 43 and 131 respectively, measured in thousands of dollars per teacher, an entirely different situation than the one presented above. As previously described, however, valuation per teacher is more correctly a measure of performance rather than of ability.

This method then is the one which has been used to represent the ability of the various districts in the selected Pennsylvania counties and the selected counties separately in each state.

In Tables XIII to XIX are presented data indicating the numbers of adults per child, the Standard Ability Units, the corrected valuations per adult measured in hundreds of dollars, the standard abilities resulting from the products of the last two items mentioned and the indices of ability for all districts in the Pennsylvania counties based in each case upon the ability of the county as 1.00. This latter figure immediately gives an excellent picture of variability.

In Adams County, there are variations from .39 of the ability of the county in McSherrystown Boro to 4.63 times the ability in Arendtsville. However, since the first named district has an unusually large parochial school enrollment, it has a very low school tax (per capita only) as shown in a later table. The next highest ability is shown in Liberty Township with an index of .48.

In Bradford County, using 5.04 as the ability of the entire county as the base, we note a range from .17 in Barclay Township to 3.20 in Burlington Boro. In Chester County with 13.44 as the base, the lowest index of .32 is found in West Brandywine Township and the highest of 3.41 in Easttown Township. Clearfield presents the very low county ability of 3.38 as the base. There the lowest index of .21 is found in Bigler Township and the highest of 3.40 in DuBois City. It is a fact easily noticeable that in general the districts of Clearfield County stand quite low in their ability to finance an adequate educational

program. In Crawford County, the base is 13.30 with a variation ranging from .21 in Geneva Boro to 2.98 in Sadsbury Township. Greene County has the next to the highest base index, 16.64 with a low ability index of .36 in Clarksville and an especially high one of 4.00 in Greene Township. In the small county of Pike with the highest ability of 17 as a base, the indices range from .54 in Greene Township to 2.96 in Porter Township.

TABLE XIII

ABILITY OF THE DISTRICTS OF ADAMS COUNTY, PENNSYLVANIA, TO SUPPORT EDUCATION

1 Districts	2 Number of adults per child*(X)	3 Standard ability units $X^2 \div 4$	4 Corrected valuation per adult in hundreds of dollars**	5 Standard ability Col. 3 × Col. 4	6 Index of ability based on county as 1.00
Abbottstown Boro...	1.48	.55	11	6.05	1.01
Arendtsville	3.33	2.77	10	27.70	4.63
Bendersville Boro....	1.76	.77	8	6.26	1.05
Berwick.....	1.05	.28	12	3.36	.56
Biglerville Boro.....	1.78	.79	11	8.69	1.45
Butler.....	1.22	.37	14	5.18	.86
Conewago.....	1.08	.29	14	4.06	.68
Cumberland.....	1.28	.41	12	4.92	.82
E. Berlin Boro.....	2.02	1.02	12	12.24	2.05
Fairfield Boro.....	2.05	1.05	10	10.50	1.76
Franklin.....	1.33	.44	15	6.60	1.10
Freedom.....	1.22	.37	16	5.92	.99
Germany.....	1.22	.37	17	6.29	1.05
Gettysburg Boro....	1.84	.85	12	10.20	1.70
Hamilton.....	1.06	.28	22	6.16	1.03
Hamiltonban.....	1.05	.28	16	4.48	.75
Highland.....	1.15	.33	19	6.27	1.05
Huntington.....	1.27	.40	11	4.40	.73
Latimore.....	1.59	.63	15	9.45	1.58
Liberty.....	.87	.19	15	2.85	.48
Littlestown Boro....	1.98	.98	9	8.82	1.47
McSherrystown Boro.	1.16	.34	7	2.38	.39
Menallen.....	1.19	.35	14	4.90	.82
Mt. Pleasant.....	1.07	.29	15	4.35	.73
Mountjoy.....	1.07	.29	15	4.35	.73
New Oxford Boro....	1.32	.44	10	4.40	.74
Oxford.....	1.01	.26	13	3.38	.56
Reading.....	1.33	.44	16	7.04	1.18
Straban.....	1.50	.56	14	7.84	1.31
Tyrone.....	1.29	.47	13	6.11	1.02
Union.....	1.15	.33	23	7.59	1.27
York Springs Boro...	1.74	.76	11	8.36	1.39
The County.....	1.36	.46	13	5.98	1.00

*Population data in Tables XIII to XIX based on U. S. Census of 1930.
**Data in Tables XIII to XIX calculated from assessed valuations for 1929-1930.

TABLE XIV

ABILITY OF THE DISTRICTS OF BRADFORD COUNTY, PENNSYLVANIA, TO SUPPORT EDUCATION

1 Districts	2 Number of adults per child (X)	3 Standard ability units $X^2 \div 4$	4 Corrected valuation per adult in hundreds of dollars	5 Standard ability Col. 3 × Col. 4	6 Index of ability based on county as 1.00
Alba Boro	2.45	1.50	6	9.00	1.78
Albany	1.38	.48	5	2.40	.47
Armenia	1.52	.58	9	5.22	1.03
Asylum	1.67	.70	9	6.30	1.25
Athens Boro	1.74	.78	5	3.90	.77
Athens Twp	1.39	.48	7	2.96	.58
Barclay	1.04	.27	2	.54	.17
Burlington Boro	3.28	2.69	6	16.14	3.20
Burlington	1.34	.45	9	4.05	.80
Canton Boro	2.14	1.14	7	7.98	1.40
Canton Twp	1.57	.62	7	4.34	.86
Columbia	1.48	.55	12	6.60	1.31
Franklin	1.62	.66	8	5.28	1.05
Granville	1.31	.43	10	4.30	.85
Herrick	1.48	.55	9	4.95	.98
LeRaysville Boro	2.07	1.07	5	5.35	1.06
LeRoy	1.51	.57	8	4.56	.90
Litchfield	1.36	.46	9	4.14	.82
Monroe Boro	2.16	1.17	6	7.02	1.39
Monroe Twp	1.32	.44	7	3.08	.61
New Albany Boro	2.26	1.28	5	6.40	1.27
N. Towanda	1.60	.64	5	3.20	.63
Orwell	1.54	.59	8	4.72	.93
Overton	1.52	.58	6	3.48	.69
Pike	1.29	.42	10	4.20	.83
Ridgebury	1.56	.61	9	5.49	1.09
Rome Boro	1.88	.88	7	6.16	1.22
Rome Twp	1.26	.40	11	4.40	.87
Sayre Boro	1.56	.61	11	6.71	1.33
Sheshequin	1.46	.53	9	4.77	.95
Smithfield	1.56	.61	9	5.49	1.09
S. Creek	1.59	.63	6	3.78	.75
S. Waverly Boro	1.19	.35	4	1.40	.28

TABLE XIV (CONTINUED)

BRADFORD COUNTY, PENNSYLVANIA

1 Districts	2	3	4	5	6
Springfield	1.63	.66	12	7.92	1.57
Standing Stone	1.59	.63	9	5.67	1.12
Stevens	1.33	.44	7	3.08	.61
Sylvania Boro	2.03	1.03	6	6.18	1.25
Terry	1.31	.43	6	2.58	.51
Towanda Boro	1.87	.87	6	5.22	1.03
Towanda Twp	1.32	.44	6	2.64	.52
Troy Boro	2.34	1.37	10	13.70	2.72
Troy Twp	1.58	.62	9	5.58	1.11
Tuscarora	1.33	.44	7	3.08	.61
Ulster	1.92	.92	7	6.44	1.28
Warren	1.46	.53	11	5.83	1.16
Wells	1.47	.54	10	5.40	1.07
W. Burlington	1.73	.75	8	6.00	1.19
Wilmot	1.33	.44	7	3.08	.61
Windham	1.67	.70	9	6.30	1.25
Wyalusing Boro	1.89	.89	6	5.34	1.06
Wyalusing Twp	1.59	.63	8	5.04	1.00
Wysox	1.39	.48	7	3.36	.67
The County	1.59	.63	8	5.04	1.00

TABLE XV

ABILITY OF THE DISTRICTS OF CHESTER COUNTY, PENNSYLVANIA, TO SUPPORT EDUCATION

1 Districts	2 Number of adults per child (X)	3 Standard ability units $X^2 \div 4$	4 Corrected valuation per adult in hundreds of dollars	5 Standard ability Col. 3 × Col. 4	6 Index of ability based on county as 1.00
Atglen Boro	1.94	.94	12	11.28	.84
Avondale Boro	1.61	.65	14	9.10	.68
Birmingham	1.47	.54	23	12.42	.92
Caln	1.42	.50	19	9.50	.71
Charlestown	1.23	.38	32	12.16	.91
Coatesville City	1.51	.57	24	13.68	1.02
Downingtown Boro.	1.61	.65	25	16.25	1.21
E. Bradford	1.44	.52	27	14.04	1.05
E. Brandywine	1.46	.53	14	7.42	.55
E. Caln	1.05	.28	39	10.92	.81
E. Coventry	1.50	.56	11	6.16	.46
E. Fallowfield	1.26	.40	11	4.40	.33
E. Goshen	1.74	.76	27	20.52	1.53
E. Marlboro	1.35	.46	28	12.88	.96
E. Nantmeal	1.40	.49	16	8.24	.61
E. Nottingham	1.43	.51	20	10.20	.76
E. Pikeland	1.26	.40	20	8.00	.59
Easttown	1.90	.90	51	45.90	3.41
E. Vincent	2.67	1.78	14	24.92	1.86
E. Whiteland	1.35	.46	28	12.88	.96
Elk	2.11	1.11	13	14.43	1.07
Elverson Boro	1.92	.92	14	12.88	.96
Franklin	1.28	.41	18	7.38	.55
Highland	1.39	.48	16	7.68	.57
Honey Brook Boro	1.96	.96	18	17.28	1.29
Honey Brook	1.15	.33	19	6.27	.47
Kennett	1.42	.50	28	14.00	1.04
Kennett Square Boro.	1.86	.86	17	14.62	1.08
London Britain	1.36	.46	22	10.12	.75
London Grove	1.24	.38	18	6.84	.51
Londonderry	1.60	.34	19	6.46	.48
Lower Oxford	1.25	.39	14	5.46	.41
Malvern Boro	1.68	.71	23	16.33	1.22
New Garden	1.11	.31	17	5.27	.39

TABLE XV (CONTINUED)

CHESTER COUNTY, PENNSYLVANIA

1 Districts	2	3	4	5	6
New London	1.84	.85	16	13.60	1.01
Newlin	1.11	.31	19	5.89	.44
North Coventry	1.39	.48	13	6.24	.47
Oxford Boro	2.16	1.17	19	22.23	1.55
Parkesburg Boro	1.75	.77	12	9.24	.68
Penn	1.56	.61	18	10.98	.82
Pennsbury	1.40	.49	39	19.11	1.42
Phoenixville Boro	1.37	.47	18	8.46	.63
Pocopson	1.77	.78	19	14.82	1.10
Sadsbury	1.45	.53	13	6.89	.51
Schuylkill	1.56	.61	28	17.08	1.27
S. Coventry	1.44	.52	11	5.72	.43
S. Coatesville Boro	1.16	.34	67	22.78	1.69
Spring City Boro	1.97	.97	12	11.64	.86
Thornbury	.82	.17	46	7.82	.58
Tredyffrin	1.48	.55	42	23.10	1.72
Upper Oxford	1.56	.61	18	10.98	.82
Upper Uwchlan	1.33	.44	18	7.92	.59
Uwchlan	1.72	.74	18	13.32	.99
Valley	1.03	.27	24	6.48	.48
Wallace	1.74	.76	14	10.64	.79
Warwick	1.51	.57	10	5.70	.42
W. Bradford	2.68	1.79	9	16.11	1.19
W. Brandywine	1.15	.33	13	4.29	.32
W. Caln	1.27	.40	13	5.20	.39
West Chester Boro	2.05	1.05	39	40.95	3.05
W. Fallowfield	1.37	.47	17	7.99	.67
W. Goshen	1.51	.57	25	14.25	1.07
W. Grove Boro	1.78	.79	15	11.85	.88
W. Marlboro	1.10	.30	20	6.00	.45
W. Nantmeal	1.23	.38	20	7.60	.64
W. Nottingham	1.62	.66	15	9.90	.74
W. Pikeland	1.70	.72	20	14.40	1.07
W. Sadsbury	1.12	.31	18	5.58	.42
W. Vincent	1.61	.65	17	11.05	.82
W. Whiteland	1.36	.46	22	10.12	.76
Westtown	1.51	.57	24	13.68	1.02
Willistown	1.56	.61	48	29.28	2.18
The County	1.52	.56	24	13.44	1.00

TABLE XVI

ABILITY OF THE DISTRICTS OF CLEARFIELD COUNTY, PENNSYLVANIA, TO SUPPORT EDUCATION

1 Districts	2 Number of adults per child (X)	3 Standard ability units $X^2 \div 4$	4 Corrected valuation per adult in hundreds of dollars	5 Standard ability Col. 3 × Col. 4	6 Index of ability based on county as 1.00
Beccaria	.72	.13	8	1.04	.31
Bell	1.03	.27	8	2.16	.63
Bigler	.78	.15	5	.75	.21
Bloom	1.03	.27	7	1.89	.56
Boggs	.85	.18	9	1.62	.48
Bradford	.92	.21	12	2.52	.78
Brady	.96	.23	19	4.37	1.29
Brisbin Boro	1.08	.29	6	1.74	.52
Burnside Boro	1.00	.25	12	3.00	.89
Burnside Twp	1.01	.25	5	1.25	.37
Chest	1.02	.26	18	4.68	1.38
Chester Hill Boro	1.10	.33	17	5.61	1.66
Clearfield Boro	1.38	.48	22	10.56	3.12
Coalport Boro	.91	.21	10	2.10	.62
Cooper	1.06	.28	6	1.68	.49
Covington	1.21	.37	11	4.07	1.20
Curwensville Boro	1.15	.33	8	2.64	.78
Decatur	.86	.18	6	1.08	.32
DuBois City	1.35	.46	25	11.50	3.40
Ferguson	1.04	.27	9	2.43	.72
Girard	.80	.16	15	2.40	.71
Glen Hope Boro	1.15	.33	10	3.30	.97
Goshen	.79	.16	7	1.12	.33
Graham	.89	.20	6	1.20	.35
Grampian Boro	1.18	.34	6	2.10	.62
Greenwood	1.23	.38	7	2.66	.79
Gulich	.66	.11	7	.77	.23
Houtzdale Boro	1.31	.43	13	5.59	1.65
Huston	.98	.24	13	3.12	.92
Irvona Boro	1.03	.27	10	2.70	.79
Jordan	1.23	.38	9	3.42	1.01
Karthaus	.98	.24	8	1.92	.57
Knox	.95	.23	8	1.84	.55

TABLE XVI (CONTINUED)

CLEARFIELD COUNTY, PENNSYLVANIA

1 Districts	2	3	4	5	6
Lawrence	.98	.24	5	1.20	.36
Lumber City Boro	.91	.21	13	2.73	.81
Mahaffey Boro	.143	.51	6	3.06	.90
Morris	.88	.19	6	1.14	.33
Newburg Boro	1.22	.37	6	2.22	.66
NewWashingtonBoro.	.97	.24	17	4.08	1.21
Osceola Mills Boro	1.27	.40	7	2.80	.83
Penn	.82	.17	9	1.53	.45
Pike	1.02	.26	13	3.38	1.00
Ramey Boro	.89	.20	8	1.60	.47
Sandy	.94	.22	9	1.98	.59
Troutville Boro	1.19	.35	9	3.15	.93
Union	1.21	.37	15	5.55	1.64
Wallaceton Boro	.93	.21	12	1.62	.48
Westover Boro	1.10	.30	7	2.10	.62
Woodward	.90	.20	5	1.00	.29
The County	1.04	.27	12.5	3.38	1.00

TABLE XVII

ABILITY OF THE DISTRICTS OF CRAWFORD COUNTY, PENNSYLVANIA, TO SUPPORT EDUCATION

1 Districts	2 Number of adults per child (X)	3 Standard ability units $X^2 \div 4$	4 Corrected valuation per adult in hundreds of dollars	5 Standard ability Col. 3 × Col. 4	6 Index of ability based on county as 1.00
Athens	1.45	.53	13	6.89	.52
Beaver	1.47	.54	18	9.72	.73
Bloomfield	1.53	.59	12	7.08	.53
Blooming Valley Boro.	1.10	.30	12	3.60	.27
Cambridge	1.69	.71	12	8.52	.64
Cambridge Springs Boro	2.29	1.31	19	24.89	1.87
Centerville Boro	1.39	.48	15	7.20	.54
Cochranton Boro	2.35	1.38	11	15.18	1.14
Conneaut	1.34	.45	17	7.65	.58
Conneaut Lake Boro.	2.40	1.44	15	21.60	1.62
Conneautville Boro.	2.38	1.42	9	12.78	.96
Cussewago	1.15	.33	15	4.95	.37
E. Fairfield	1.79	.80	12	9.60	.72
E. Fallowfield	1.45	.53	10	5.30	.40
E. Mead	1.41	.50	9	4.50	.34
Fairfield	1.40	.49	16	7.84	.59
Geneva Boro	1.18	.35	8	2.80	.21
Greenwood	1.62	.66	12	7.92	.60
Hayfield Boro	1.45	.53	12	6.36	.48
Hydetown Boro	1.63	.66	6	3.96	.30
Linesville Boro	2.43	1.48	14	20.72	1.56
Meadville	1.78	.79	28	22.12	1.66
N. Shenango	1.29	.42	19	7.98	.60
Oil Creek	1.24	.38	12	4.56	.34
Pine	1.61	.65	16	10.40	.78
Randolph	1.41	.50	11	5.50	.41
Richmond	1.46	.53	14	7.42	.55
Rockdale	1.55	.60	15	9.00	.68
Rome	1.38	.48	14	6.72	.51
Sadsbury	2.19	1.20	33	39.60	2.98
Saegerstown Boro	1.88	.88	13	11.44	.86
S. Shenango	1.69	.71	13	9.23	.69

TABLE XVII (CONTINUED)

CRAWFORD COUNTY, PENNSYLVANIA

1 Districts	2	3	4	5	6
Sparta	1.39	.48	15	7.20	.54
Spartansburg Boro.	2.56	1.64	13	21.32	1.60
Spring	1.41	.50	16	8.00	.60
Springboro Boro	2.02	1.02	10	10.20	.77
Steuben	1.69	.71	10	7.10	.53
Summerhill	1.66	.69	16	11.04	.83
Summit	2.00	1.00	32	32.00	2.41
Titusville	1.83	.84	23	19.32	1.45
Townville Boro	2.02	1.00	7	7.00	.53
Troy	1.34	.45	9	4.05	.30
Union	1.76	.77	12	9.24	.69
Venango Boro	2.46	1.51	10	15.10	1.14
Venango	1.48	.55	15	8.25	.62
Vernon	1.40	.49	12	5.88	.44
Wayne	1.61	.65	14	9.10	.69
W. Fallowfield	2.14	1.14	14	15.96	1.20
W. Mead	1.39	.48	8	3.84	.28
W. Shenango	1.49	.56	25	14.00	1.05
Woodcock Boro	2.59	1.68	6	10.08	.76
Woodcock Twp	1.32	.44	15	6.60	.49
The County	1.67	.70	19	13.30	1.00

TABLE XVIII

ABILITY OF THE DISTRICTS OF GREENE COUNTY, PENNSYLVANIA, TO SUPPORT EDUCATION

1 Districts	2 Number of adults per child (X)	3 Standard ability units $X^2 \div 4$	4 Corrected valuation per adult in hundreds of dollars	5 Standard ability Col. 3 × Col. 4	6 Index of ability based on county as 1.00
Aleppo	1.10	.30	36	10.80	.65
Carmichaels Boro	1.90	.90	18	16.20	.97
Center	1.59	.63	68	42.84	2.57
Clarksville Boro	1.27	.40	15	6.00	.36
Cumberland	.86	.18	59	10.62	.64
Dunkard	.93	.22	66	14.52	.87
Franklin	1.31	.43	44	18.92	1.14
Gilmore	1.41	.50	56	28.00	1.68
Graysville Boro	1.47	.54	32	17.28	1.04
Greene	1.21	.37	180	66.60	4.00
Greensboro Boro	1.31	.43	14	6.02	.37
Jackson	1.30	.42	49	20.58	1.24
Jefferson Boro	1.41	.50	13	6.50	.39
Jefferson Twp	1.09	.30	87	26.10	1.57
Monongahela	.92	.21	69	14.49	.87
Morgan	.93	.22	38	8.36	.50
Morris	1.21	.37	72	26.64	1.60
Mt. Morris Boro	2.49	1.55	20	31.00	1.86
New Freeport Boro	1.37	.47	23	10.81	.65
Perry	1.43	.51	101	51.51	3.09
Rices Landing Boro	1.03	.27	12	3.24	1.93
Richill	1.27	.40	38	15.20	.89
Springhill	1.12	.31	24	7.44	.45
Washington	1.43	.51	82	41.82	2.51
Wayne	1.43	.51	61	31.11	1.87
Waynesburg Boro	1.98	.98	25	24.50	1.47
Whitely	1.65	.68	155	105.40	6.33
The County	1.14	.32	52	16.64	1.00

TABLE XIX

ABILITY OF THE DISTRICTS OF PIKE COUNTY, PENNSYLVANIA, TO SUPPORT EDUCATION

1 Districts	2 Number of adults per child (X)	3 Standard ability units $X^3 \div 4$	4 Corrected valuation per adult in hundreds of dollars	5 Standard ability Col. 3 × Col. 4	6 Index of ability based on county as 1.00
Blooming Grove	1.64	.67	21	14.07	.73
Delaware	2.46	1.51	23	34.73	2.05
Dingman	2.16	1.17	17	19.89	1.16
Greene	1.69	.71	13	9.23	.54
Lackawaxen	2.21	1.22	11	13.44	.79
Lehman	1.59	.63	21	13.23	.78
Matamoras Boro	1.94	.94	10	9.40	.55
Milford	2.55	1.63	25	40.75	2.39
Palmyra	1.73	.75	28	21.00	1.23
Porter	1.39	.48	105	50.40	2.96
Shohola	1.84	.85	16	13.60	.80
Westfall	2.24	1.25	10	12.50	.74
The County	2.00	1.00	17	17.00	1.00

In Table XX are presented comparative data on the ability to support education as conditioned by the effects of population, for each of the selected counties in both Pennsylvania and in Maryland and for the group average in each case. It is rather unusual that the average number of adults per child is the same for each group while the valuation of property taxable at the time was also very close, being $2070 per adult for the Pennsylvania counties and $1800 per adult for the Maryland group. The relative abilities are seen to be 9.9 in the first named and 8.64 in the latter. The variations in each group are also approximately the same, the highest county having an ability of approximately five times the lowest.

The significant fact pertaining to this study, as shown by the tables just discussed, is that under the present district or

TABLE XX

ABILITY OF THE SELECTED COUNTIES TO SUPPORT EDUCATION AS CONDITIONED BY THE EFFECTS OF POPULATION

Pennsylvania

1 Counties	2 Number of adults per child (X)	3 Standard Ability Units $X^3 \div 4$	4 Valuation* per adult in hundreds of dollars	5 Standard Ability Col. 3 × Col. 4
1. Adams	1.36	.46	13	5.98
2. Bradford	1.59	.63	8	5.04
3. Chester	1.52	.56	24	13.44
4. Clearfield	1.04	.27	12.5	3.38
5. Crawford	1.67	.70	19	13.30
6. Greene	1.14	.32	52	16.64
7. Pike	2.00	1.00	17	17.00
Average	1.39	.48	20.7	9.9

Maryland

1 Counties	2 Number of adults per child (X)	3 Standard Ability Units $X^3 \div 4$	4 Valuation* per adult in hundreds of dollars	5 Standard Ability Col. 3 × Col. 4
1. Carroll	1.68	.71	16	11.36
2. Frederick	1.43	.51	20	10.20
3. Baltimore	1.46	.53	22	11.66
4. Allegany	1.34	.45	18	8.10
5. Washington	1.39	.48	19	9.12
6. Garrett	1.02	.26	21	5.46
7. Calvert	1.03	.27	11	2.97
Average	1.39	.48	18	8.64

*Based on property taxable at full county rate.

township system of administration and support now existing in Pennsylvania an exceptionally wide range of ability to finance an adequate educational program exists, resulting in consequent inequality of burden to those who must pay the cost and a probable inequality of opportunity to the boys and girls who pass through the schools. Under the county unit system as typified in Maryland, these inequalities of burden of support within each county would be reduced to that of the county as a whole. Of course, there would still be variations between the counties, as shown by Table XX, but the myriad of inequalities between the townships and boroughs would largely disappear and the operation and administration of an equalization fund would be much more simple. Such is the present system in Maryland.

An interesting sidelight upon properly measuring the ability of a unit to support education is shown by a recent study of Staffelbach[19] in which the effect of density of population has been to a certain extent investigated and measured. Among other findings which Norton[20] says, "are presented as 'estimates' and as indicative rather than conclusive are:

1. Unit costs in education remain unaffected by changes in population density in states having twenty four or more people per square mile.
2. In states having six or less people per square mile, school costs are increased approximately thirty three per cent by low population density, while in states having from six to twenty-four people per square mile school costs are increased approximately five per cent by low population density."

In this connection the only county to be affected by these findings would be Pike with a density of 13.8 per square mile. This would cause, therefore, if the above "findings" are valid, a decrease of five per cent in the ability, reducing it from 17.00 to 16.15. All of the other counties in both states have densities of population sufficiently high to be unchanged

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[19]Staffelbach, Elmer H., "Opportunities of the Federal Government in the Support of Education", Unpublished dissertation completed at Stanford University, California.

[20]Norton, J. K., op. cit., p. 66.

by the results of Staffelbach's study. Apparently much more work needs to be done in this field before the findings can be applied to very small districts.

Effort

The term effort is very largely a relative one, which, because of the large number of factors involved, is exceedingly difficult of measurement. Nevertheless, by many authorities it is considered an item of prime importance in the distribution of state subsidies. Reward for effort, in essence, has been given as one of the "underlying principles" in this matter by Updegraff and King[21]. Morrison[22] speaks of effort as "an administrative term which implies a measure of local volition in raising money. If it were possible to find a valid measure of ability, then effort would be expressed by the ratio MONEY RAISED LOCALLY: ABILITY." Again, Updegraff and King[23] state that, "The effort which a district makes to support schools is determined primarily by the amount of money it spends per school unit." Writing upon the same topic Swift and Del Plaine [24] have said that, "if we wish to compare communities as to their effort to provide schools, we may take expenditure per school child. Other measures of effort are the rate of school tax and the amount of money expended for schools on each $1,000 of estimated wealth." Speaking also of the measures of effort, Pittenger[25] states "the most satisfactory would seem to be the school tax rate, providing that the assessment ratios of the supporting units under comparison are the same, and that there is no important local source of supply other than taxation." Wright, Deputy Commissioner of Education in Massachusetts has taken the following position:[26]

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[21]Updegraff, Harlan and King, L. A., "A Survey of the Fiscal Policies of the State of Pennsylvania in the Field of Education", pp. 44-45, 1922.

[22]Morrison, H. C., op. cit., p. 230.

[23]Loc. cit.

[24]Op. cit. p. 10.

[25]Pittenger, B. F.: Introduction to Public School Finance, p. 253.

[26]Wright, Frank W., "Financial Problems in Education in Massachusetts", p. 337, School Men's Week Proceedings, Vol. XIV, 1927, University of Pennsylvania.

"No state fund, however large, that does not take into consideration the two factors,—ability and effort, will accomplish any worth while results in equalizing educational opportunities. . . . The valuation per pupil, combined with the expenditures per pupil from local taxation, are factors that should be incorporated in any plan for State support of education."

It is thus quite obvious that attempts have been made and are being made to measure effort in a variety of ways. Opinions differ widely as to the one which is best. It seems reasonably clear, however, that the most satisfactory measure should imply to an extent, at least, "local volition" and that it must be discussed in connection with ability which certainly is a limiting factor.

Table XXI illustrates the wide variations when expenditure per pupil belonging is taken as a partial measure of effort. In the Pennsylvania group the variation is from $150.95 per pupil in Pike County to $63.29 in Clearfield, a range of $87.66. Wide variations also exist in the Maryland counties, Calvert ranking lowest with $52.78 per pupil and Baltimore highest with $121.25, the range being $68.47. No comparisons may be drawn, however, between the states, because of varied influences.

Presenting a partial measure of effort from another point of view, Table XXII shows the relationship which the receipts from local taxation for school purposes in each of the counties bears to the total expenditures for current expenses for school purposes. This relationship between two reasonably constant factors gives some indication, at least, of the extent to which the counties are bearing the burden of the operating costs of their schools. The table shows that in Adams County the receipts from local taxation were but 54.9 per cent of the amount expended for current expenses while in Greene they were 90.4 per cent, a range of 35.5 per cent. In Maryland the range was 55.1 per cent, from 49.2 per cent in Calvert to 104.1 per cent in Washington. It is evident that in the latter case the fund received from local taxation more than paid for the running expenses of the schools. The average for the Pennsylvania counties was 74.1 per cent and for the Maryland group 92.5

TABLE XXI

VARIATIONS IN EXPENDITURES* PER PUPIL BELONGING IN THE SELECTED COUNTIES IN PENNSYLVANIA AND MARYLAND FOR THE YEAR 1929-1930

Pennsylvania

1 Counties	2 Expenditures per pupil belonging for the year 1929-1930
1. Pike	$150.95
2. Greene	112.71
3. Crawford	111.33
4. Bradford	109.25
5. Chester	94.18
6. Adams	87.76
7. Clearfield	63.29
Average	104.21

Maryland

1 Counties	2 Expenditures per pupil belonging for the year 1929-1930
1. Baltimore	$121.25
2. Garrett	94.59
3. Allegany	82.65
4. Washington	75.82
5. Frederick	74.07
6. Carroll	70.19
7. Calvert	52.78
Average	81.62

*Includes current expense, debt service and capital outlay.

TABLE XXII

RELATIONSHIP BETWEEN RECEIPTS FROM LOCAL TAXATION FOR SCHOOL PURPOSES AND EXPENDITURES FOR CURRENT EXPENSES IN THE SELECTED COUNTIES OF PENNSYLVANIA AND MARYLAND FOR THE YEAR 1929-1930

Pennsylvania

1 Counties	2 Receipts from local taxation	3 *Expenditures for current expenses	4 Ratio of receipts from local taxation to expenditures for current expenses Col. 2 ÷ Col. 3 in per cent
1. Adams	$286,525.48	$521,024.43	54.9
2. Bradford	573,478.68	979,560.59	58.5
3. Chester	1,425,622.40	1,707,623.99	83.5
4. Clearfield	894,114.34	1,208,928.13	73.9
5. Crawford	769,651.77	1,076,579.80	71.5
6. Greene	682,391.98	755,104.20	90.4
7. Pike	105,039.13	147,580.42	71.2
Average	676,689.11	913,771.65	74.1

Maryland

1 Counties	2 Receipts** from local taxation	3 *Expenditures** for current expenses	4 Ratio of receipts from local taxation to expenditures for current expenses Col. 2 ÷ Col. 3 in per cent
1. Carroll	$318,444.85	$425,231.91	74.9
2. Frederick	500,845.00	535,313.90	93.6
3. Baltimore	1,136,427.00	1,143,353.26	99.4
4. Allegany	836,476.50	875,034.84	95.6
5. Washington	683,280.96	656,598.45	104.1
6. Garrett	231,965.87	327,550.56	70.8
7. Calvert	46,158.17	93,846.21	49.2
Average	536,228.73	579,561.30	92.5

*Includes salaries, travelling expenses of county and assistant county superintendents and all expenses of office maintenance.

**Data for Maryland from Tables XXII and XXIII, 1930 Report, State Department of Education.

per cent. Of course, this does not mean that all of the funds received from local taxation were used for current expenses. It merely indicates a relationship.

If we examine the percentages when the salaries and travelling expenses of the county and assistant county superintendents and the expenses of office maintenance are omitted some differences are noted. These ratios are presented in Table XXIII.

TABLE XXIII

RATIOS OF RECEIPTS FROM LOCAL TAXATION TO ACTUAL EXPENDITURES FOR CURRENT EXPENSES IN THE SELECTED PENNSYLVANIA COUNTIES FOR THE YEAR 1929-1930

Counties	Per cent receipts from local taxation are of expenditures for current expenses
Adams	55.9
Bradford	59.4
Chester	84.4
Clearfield	74.9
Crawford	72.4
Greene	92.4
Pike	73.8
Average	76.3

The ratios presented in Table XXII become more significant when studied in connection with ability, for effort and ability are closely related to each other. These are presented in Table XXIV. It may be seen that in five of the Pennsylvania counties, there is a fairly close correlation between ability and effort as measured by the relationship indicated. Exceptions are noted in the cases of Pike and Clearfield Counties, the former ranking highest in ability when the effects of population are considered and fifth in effort when the ratio of local tax receipts to expenditures is taken into account. Even with this effort, however, it is able to provide a school term of at least 180 days and to employ teachers all of whom have standard certification. As data presented later will show, it

TABLE XXIV

SHOWING RANK OF THE SELECTED COUNTIES IN ABILITY AS MEASURED BY CLARK'S FORMULA AND RANK IN EFFORT, AS MEASURED BY THE RELATIONSHIP OF RECEIPTS FROM LOCAL TAXATION TO EXPENDITURES FOR CURRENT EXPENSES FOR THE YEAR 1929-1930

Pennsylvania

1 Counties	2 Rank in ability*	3 Rank in effort**
1. Pike	1	5
2. Greene	2	1
3. Chester	3	2
4. Crawford	4	4
5. Adams	5	7
6. Bradford	6	6
7. Clearfield	7	3

Maryland

1 Counties	2 Rank in ability*	3 Rank in effort**
1. Baltimore	1	2
2. Carroll	2	5
3. Frederick	3	4
4. Washington	4	1
5. Allegany	5	3
6. Garrett	6	6
7. Calvert	7	7

*As conditioned by the effects of population.
**As conditioned by the relationships which the receipts from local taxation bear to expenditures for current expenses.

has also been a leader in the reduction of one-teacher schools during the last decade. On the other hand, Clearfield County, lowest of the group in ability, with difficulties peculiar to those counties located in the bituminous coal regions, must exert itself to the limit to support even a minimum program. In that part of the Table referring to Maryland, there are also

two outstanding cases of non-correlation, notably in Carroll and Washington Counties.

The corrected tax rate for school purposes is an indication of effort to the extent that the basis of taxation is sound and that the ratios of assessed to real valuations are reasonably correct. The school tax rates for the Pennsylvania counties adjusted or corrected on the basis of these ratios are presented in the form of a distribution in Table XXV and separately for each district, in the Appendix. Even with the limitations of these ratios and the weaknesses of the property tax in its production of varying loads upon different communities, though the same levied tax rate exists, a matter which will be discussed more in detail in a later chapter, the data is valuable as a means of checking on other measures of effort. Here Clearfield and Bradford stand high. For Clearfield County, this is in line with the data in Table XXIV but for Bradford it is at variance with it. This in the latter case is some indication of the fact that there the stated ratios of assessed to real valuations are probably higher than the facts warrant. Greene County, on the other hand, because of its high ability can raise a large proportion of its funds with low actual tax rates.

In Charts III and IV these median corrected tax rates in Pennsylvania and the published tax rates in Maryland are pictured in connection with the abilities of the counties. In this case, however, the corrected school tax rates for the Pennsylvania counties have been further refined by adding to them the equivalents in mills of the median per capita tax rates for school purposes. For the county as a whole this is a more nearly true picture of the real situation.

Chart III is read as follows: The ability of Pike County to support education is measured by a Standard Ability of seventeen as indicated by Clark's formula, while its effort is represented by a median corrected school tax rate of 11.66 mills on each dollar of property valuation, or 12.89 mills when the equivalent of the median per capita tax rate is calculated in terms of mills and added thereto.

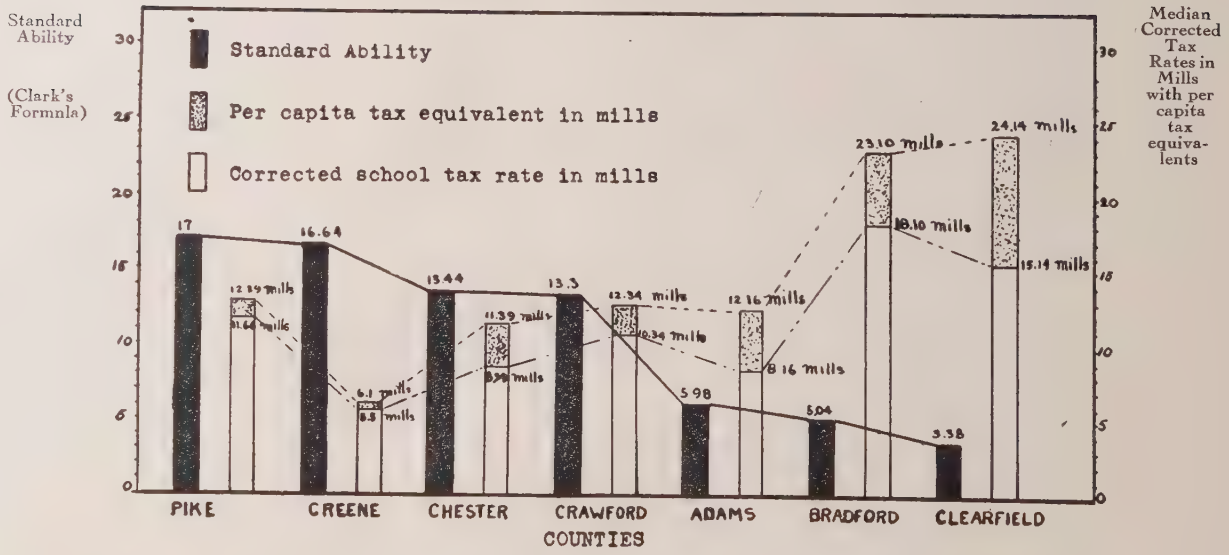
TABLE XXV

DISTRIBUTION OF CORRECTED SCHOOL TAX RATES IN THE SELECTED PENNSYLVANIA COUNTIES, 1929-1930

Corrected school tax rates in mills	Number of districts with corrected school tax rates as indicated							
	Adams County	Bradford County	Chester County	Clearfield County	Crawford County	Greene County	Pike County	Totals
0– 4.99	5	1	1	1	2	12		22
5– 9.99	19	1	53	9	24	11	4	121
10–14.99	9	11	19	14	22	4	6	85
15–19.99	1	25	1	17	5		2	51
20–24.99		11		5	1			17
25–29.99		4		2	1			7
30–34.99		0		1				1
35–39.99		2						2
Totals	34	55	74	49	55	27	12	306
Medians	8.16	18.1	8.39	15.14	10.34	5.50	11.66	

CHART III

RELATION OF ABILITY* AND EFFORT** TO SUPPORT EDUCATION IN THE SELECTED PENNSYLVANIA COUNTIES—1929-1930

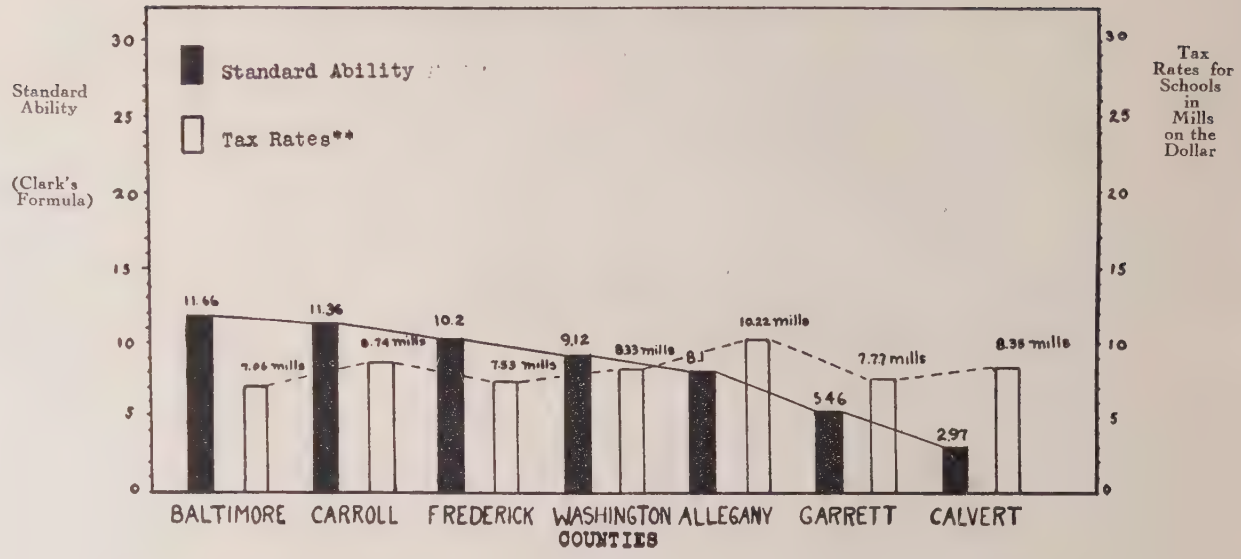


*Measured by Clark's Formula.

**Measured by median Corrected County Tax Rates, with per capita tax equivalent in mills.

CHART IV

RELATION OF ABILITY* AND EFFORT** TO SUPPORT EDUCATION IN THE SELECTED MARYLAND COUNTIES—1929-1930



*Measured by Clark's Formula.

**As indicated by tax rates calculated from total school budgets and assessable basis taxable at full rate.

For Maryland the relationships are normal, i. e., those counties with high ability are proportionately low in effort as measured by the tax rates for school purposes and vice versa. In Pennsylvania the differences between ability and effort are much more pronounced, although the general tendency of the curve is normal. It seems reasonable to assume that the greater evenness noted in the Maryland situation is probably due to the equalizing effects of the equalization fund which is distributed upon the basis that when a county cannot support the minimum program on a tax rate of 67 cents (6.7 mills), the state will pay the difference between the amount raised by this tax and the amount required, provided that not less than 24 per cent of the current expense budget must be spent for purposes other than teachers' salaries. The State Department of Education makes the following statement concerning this fund:

"The Equalization Fund makes it possible for every county, poor or rich, without increasing local taxes, to fill from year to year every school vacancy with a professionally trained teacher and to provide this teacher with the requisite materials for instruction."[27]

A still further indication of effort is noted in Table XXVI showing the distribution of the tax rates actually levied for school purposes. This distribution must be considered, however, in the light of the maximum levies permitted by the state.

As has been stated in Chapter III, Section 537 of the Pennsylvania School Code fixes the maximum school tax rate (exclusive of the per capita tax) in the third and fourth class districts at twenty five mills. Reference is also made in the chapter to the fact that Section 1210 raises the limit for fourth class districts to thirty five mills and sets no actual statutory limitation for districts of the second and third class. The tax levied must be sufficient to cover the salaries and increments of the teaching and supervisory force as provided by the Act, (Section 1210), and is not invalidated by the fact that it may exceed the limits set by the earlier section. Actually, therefore,

[27]Maryland School Bulletin, Vol. VI, No. 3, p. 25, March, 1925, State Department of Education, Baltimore, Maryland.

TABLE XXVI

DISTRIBUTION OF LEVIED SCHOOL TAX RATES IN THE SELECTED PENNSYLVANIA COUNTIES

Levied school tax rates in mills	Number of districts with levied school tax rates as indicated							
	Adams County	Bradford County	Chester County	Clearfield County	Crawford County	Greene County	Pike County	Totals
0– 4.99	1	..	..	..	..	2	..	3
5– 9.99	4	1	14	..	2	10	3	34
10–14.99	15	11	36	2	16	7	7	94
15–19.99	11	18	23	6	19	3	2	82
20–24.99	3	16	..	1	14	4	..	38
25–29.99	..	2	1	15	4	1	..	23
30–34.99	..	3	..	7	..	..	..	10
35–39.99	..	3	..	12	..	..	..	15
40–44.99	..	..	..	2	..	..	..	2
45–49.99	..	..	..	2	..	..	..	2
50–54.99	..	1	..	..	..	..	..	1
55–59.99	..	..	..	1	..	..	..	1
60–64.99	..	..	..	1	..	..	..	1
Totals	34	55	74	49	55	27	12	306
Medians	14.81	19.14	13.89	30.25	17.29	10.55	13.89	

the limitation is that set by the salary requirements of this Act.

It is evident from Table XXVI that Clearfield County is making the strongest effort to support its educational program as measured by the tax rates actually levied and permitted to be levied. At the time the data were collected there were in the county five third class districts as follows: Clearfield Boro, Cooper Township, DuBois City, Morris Township and Sandy Township. The school tax rates levied by these districts were respectively; forty two mills, fifty nine mills, thirty nine mills, sixty mills, and forty five mills. Thirteen other districts were levying the legal limit of thirty five mills, in two cases more than the limit, and could make no further effort in this respect unless the assessments were to be readjusted. Subsequent allocations of aid by the State Council of Education indicate that even this high rate of taxation has not been sufficient to support the minimum program. Bradford County ranks next in this method of indicating effort. Three fourth class districts were levying the limit of thirty five mills while Sayre Boro, a district of the third class levied a tax rate of fifty mills. The Table is valid only as indicating effort shown by tax rates levied in relation to legal maximums and as resting on an assessment system with many inherent weaknesses, to be described in a later chapter.

Need

"Need", writes Pittenger, "is generally recorded in terms of the number of children who must be educated."[28] This method alone, however, is fraught with difficulties because of the number of variables involved in the situation. Of itself, it is not sufficient. It must be thought of in connection with standards of teacher training, pupils per teacher, cost of living, types of instruction offered or which should be offered, and the ability and effort of the communities or districts concerned.

Need is, in a general way, synonymous with "load" or at least it has been so used in a recent excellent article by Morri-

[28]Pittenger, B. F., op. cit., p. 238.

son to which reference has previously been made. He states,[29] that "The term 'load' is usually expressed as number of educables or some derivative thereof, such as teacher-quota, number of teachers, and the like. We ought to bear in mind that any such derivative is meaningless apart from the term 'cost', and cost is meaningless unless it is referred to some constant such as 'standard school' or 'minimum schooling.' Thus the constant employed is brought under scrutiny."

Comparisons between the need of the Maryland and Pennsylvania counties cannot be made because of differences between the interpretation of the minimum program. Maryland assumes that it is proper for a county to make a reasonable effort to finance the minimum program set up by the state but if, with this reasonable effort, the cost of this program cannot be met, then it is the obligation of the state to supply this need. For this purpose the Equalization Fund is used and distributed as previously described. An interesting combined measure of ability and need is found in the unit called "Taxable wealth behind each dollar needed to carry the calculated minimum current expense program." The following data taken from Table 1 of the Maryland School Bulletin for September, 1930,[30] illustrates the variations:

Counties	Taxable wealth behind each dollar needed to carry calculated minimum current expense program
Calvert	$61
Garrett	67
Carroll	102
Allegany	114
Washington	126
Frederick	128
Baltimore	200
Average (above counties)	114
Average (all counties)	123

[29]Morrison, H. C., op. cit., p. 231.

[30]"Equalizing Educational Opportunities in Maryland", p. 10, Maryland School Bulletin, Vol. XII, No. 1, September, 1930, State Department of Education, Baltimore, Md.

If the Equalization Fund is to be used to meet the varying needs of counties or smaller units, then such a measure is a highly valid one, providing, of course, that the basis of taxable wealth is sound. Since, in Maryland, the largest source of revenue is the property tax, this is subject to the criticisms which are to be discussed in detail in a later chapter.

Lacking any clearly defined complete minimum program upon which to refer as a base in Pennsylvania, some other means must be used to ascertain need in that state until such a program is definitely established. A very complete and recent study in this field covering the entire state is found in the Report of the Commission to Study the Distribution of State Subsidies to School Districts. The Staff of this Commission, under the Directorship of Dr. Paul R. Mort, set up after much investigation, "units of need" based upon "elementary teacher units, high school teacher units, and transportation and cost of living corrections, all reduced to equivalents of an elementary teacher unit."[31]

Quoting further from this Study:

> "An index was obtained by using the number of pupils attending school. In large schools, 32 pupils in average daily attendance in an elementary school are taken as an elementary teacher unit. Since high school classes are smaller, 23 high school pupils are taken as a high school teacher unit. These are average figures for the large schools throughout the State. Since in Pennsylvania the maintenance cost per teacher unit in high schools is approximately 20 per cent higher than in elementary schools, each high school teacher unit was then counted as 1.20 elementary teacher units."[32]

The detailed method of securing the number of elementary teacher units is described as follows:[33]

> "Count two teachers for the first 55 pupils in average daily attendance and one for each additional 40 pupils. For a school having 65 pupils, two teaching units are counted for the first 55 pupils. This leaves 10 pupils to count at the rate of one teacher for 40. The total teaching units to be allotted to such a school will, therefore, be 2.25.

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[31] "Report of the Commission to Study the Distribution of State Subsidies to School Districts", p. 16, Department of Public Instruction, Harrisburg, Pa., 1928.

[32] Ibid., p. 15.

[33] Ibid., p. 117.

A school with an average daily attendance of 44 would receive $\frac{44}{18}$ of two teaching units or 1.6 teaching units. Obviously, the smallest number of pupils per teacher that this considers is 27.5, a standard which is applied to all schools with two or more teachers for an average daily attendance of 55 or less. This number of pupils per teacher increases gradually until it is equivalent to one teacher for 32 pupils, the standard which applies to a large school. The above formula is, therefore, applied only to schools with an average daily attendance below 100. For schools with an average daily attendance of 100, and above, one teacher is counted for each 32 pupils."

In developing high school teacher units the following procedure was used:[34]

"In schools below 70, count 4 teaching units for the first 69 pupils and one for each additional 28. A school with an average daily attendance of 140 would count 4 units for the first 69 pupils and 2.54 for the other 71 pupils, or a total of 6.54 teaching units. The number of pupils per teacher allotted by this formula increases from slightly over 17 at 70 to 23 at 200. At this point the size of school is reached which has the same number of pupils per teacher as was found in the large schools. For schools above 200, therefore, one teaching unit is counted for 23 pupils."

Then through the techniques of Burns [35] and Harry [36] equivalent units for transportation need and for the effects of the cost of living in districts near large centers were determined and added to those described above. In Table III of the Report under discussion, revised as of March 26, 1928, the needs of the counties used in this study are as follows:

County	Elementary schools	High schools	Transportation	Cost of living	Total
Adams.....	$193.10	$50.42	$3.27	.....	$246.79
Bradford.....	314.37	106.21	49.99	$5.66	476.23
Chester.....	585.76	182.85	38.28	26.98	833.87
Clearfield.....	604.22	166.22	10.31	13.76	790.87
Crawford.....	380.87	139.08	43.11	10.34	573.40
Greene.....	282.51	54.71	11.57	.....	348.79
Pike.....	37.27	12.30	12.40	.....	61.97

[34]Ibid., 118.

[35]Burns, Robert L.: Measurement of Need for Transporting Pupils, Teachers College, Bureau of Publications, New York City.

[36]Harry, David P. Jr.: The Cost of Living of Teachers ,Teachers College, Bureau of Publications, Columbia University.

Table LI of the same Report shows variations in the total number of units for the districts within the counties as follows:

Counties	Lowest units of need	Highest units of need
Adams	1.00	40.89
Bradford	1.00	77.27
Chester	.34	111.77
Clearfield	1.00	95.58
Crawford	.41	91.91
Greene	0	40.81
Pike	1.13	11.78

The Commission recommended[37] that

> "As soon as it is feasible the General Assembly adopt a plan by which a minimum program, costing for current expenses an amount equivalent to $1500 for each elementary teaching unit and $1800 for each high school teaching unit with a proportional allocation on account of differences in cost of living and of transporting pupils in the various districts, may be guaranteed to each pupil in the State with an equal burden of local taxation."

It is to be regretted that practically no concrete results have as yet come from this excellent study.

Summary

This chapter has pointed out the difficulties in accurately measuring the ability, effort and need of school districts and communities. It has brought out the fact that these terms are best thought of as relative ones.

Some of the methods adopted to measure ability to support education have used assessed and true or equalized valuations per pupil or per teacher and per capita income. Other factors which are involved, however, are:

1. Total population.
2. Number of adults in relation to the number of children.

[37] Ibid., p. 19.

3. Number of children above and below the compulsory age limits.
4. Density of population.
5. Cost of living.

The formula which seems to take into account the greatest number of these factors is that developed by Clark. There the ratio $\frac{x^3}{4}$, in which X stands for the number of adults per child, is developed. This basic figure is then combined with wealth per adult, yielding a measure, which is designated herein as the "Standard Ability", and which for the districts in each county in Pennsylvania is represented by indices based on the "ability of the county as 1.00."

Wide variations of ability to finance education as measured by Clark's formula, resulting in consequent inequalities of the burden of support are shown to exist within each county in the selected Pennsylvania group. Significant variations among the counties studied also exist in both states but they are very nearly alike for the two groups. The effect of the adoption by Pennsylvania of the type of county unit organization found in Maryland would be to reduce the inequalities of the burden of support now existing in each county to that of the county as a whole. Variations of ability between counties would, however, continue to exist.

Effort to support education is also difficult of determination because of the large number of factors concerned. One cannot escape the fact, however, that it does involve the element of local volition in raising money. The chapter presents partial measures of effort in a variety of ways, none of which is self-sufficient. If expenditure per pupil belonging is taken as the measure, variations from $63.29 to $150.95 per pupil per year are found among the Pennsylvania counties for 1929-1930 and from $52.78 to $121.25 per pupil in the Maryland group. Figures for the two states, however, are not comparable.

A different indication is shown in the relation which the receipts from local taxation for school purposes in each county bear to the total expenditures for current expenses for school purposes. When the actual net current expenditures for the

Pennsylvania counties were studied, local tax receipts were observed to range from 55.9 per cent in Adams County to 92.4 per cent of those in Greene County, the average being 76.3 per cent. Corresponding figures for the Maryland counties range from 49.2 per cent in Calvert to 104.1 per cent in Washington County, with an average of 92.5 per cent. If, for the sake of greater comparability, the salaries and expenses of the county administrative and supervisory officers are added to the Pennsylvania figures the percentages are lowered slightly, the average falling to 74.1 per cent. Apparently the Maryland counties were exerting a slightly greater effort to support education when measured in the manner indicated. Variations among the Maryland group were somewhat greater, however. Here, the effect of the Equalization Fund is observed. A study of the relationships between ability and effort as just described indicates a slightly higher correlation among the Maryland counties.

Tax rates as partial measures of effort are shown distributed for all the districts in the Pennsylvania counties studied, a much wider variation being noted in the levied rates as opposed to the corrected ones. In the former case, a rather large number of districts was levying the maximum legal tax rates. Especially is this observed in Clearfield County.

Charts showing the relations between the abilities of the counties as conditioned by the effects of population and effort as measured by the total corrected median school tax rates in Pennsylvania and the county rates in Maryland, calculated from the total school budgets and the assessable basis taxable at the full rate, indicate a more nearly normal situation in the latter case.

The chapter has shown the variations in need in the selected Maryland counties as measured by the "Taxable wealth behind each dollar needed to carry the calculated minimum program", the range being from $61.00 to Calvert in $200.00 in Baltimore County with a state average of $123.00. For Pennsylvania, the recent report of the Commission to Study the Distribution of State Subsidies to School Districts has been reviewed as it applies to need, which has been determined in teacher units,

high school and elementary, corrected for transportation need and in certain counties, for the cost of living. Variations within the counties, of course, are due largely to sizes of the local districts.

CHAPTER V

EXPENDITURES

In this chapter an examination will be made of the distribution of the expenditures for the three major divisions of the budget for the year 1929-1930, in the selected counties of both states, to ascertain if there are differences existing for which there are apparent, probable causal relationships to the type of administrative unit. A further examination will be made to ascertain the percentage distribution of the division of expenditures for current expenses. Other things being equal, that type of unit which entails a minimum of expenditures for administration and a maximum for those items which most directly affect the accomplishment of the purposes of education is probably the most efficient.

This chapter will also bring out the expenditures for non-resident high school tuition in both states. There will be presented an analysis of these costs for each district concerned in Pennsylvania and for each of the Maryland counties. An attempt will be made to ascertain all of the existing inequalities in this phase of expenditures in Pennsylvania and the probable effect of the adoption of the Maryland plan of county administration both within the counties and among them.

The item of transportation costs will also be examined to determine policies, to ascertain costs and to seek to answer the question of whether or not administration on a county basis makes possible a more economical service. As a case study, the results of an investigation into the burdens of transportation costs to the parents for non-resident high school pupils in Chester County, Pennsylvania, will be presented.

The Major Distribution of Expenditures for Current Expense, Debt Service and Capital Outlay

An analysis of the per cent distribution of the major expenditures of the budget for the school year 1929-1930 for both the Pennsylvania and Maryland counties is presented in

Table XXVII. In order to make the distributions comparable there have been added to the expenditures reported by the school districts of Pennsylvania, the salaries and travelling expenses of the county and assistant county superintendents in each county as well as the amounts spent by the county commissioners for the office maintenance thereof, including rent, stenographic assistance, postage, printing, etc. These expenses in Maryland are paid by the county board of education and, therefore, should be included in the Pennsylvania figures.

In Pennsylvania the per cents which the amounts spent for current expenses were of the total expenditures for public education in the selected counties varied from 67.1 per cent in Greene County to 82.3 per cent in Pike, those for debt service from 8.8 in Crawford to 22.6 per cent in Chester County and for capital outlay from 4.5 in Pike to 19.2 per cent in Crawford. Similar figures for Maryland show a much wider range. The per cent of expenditures for current expenses varied from 50.4 in Baltimore County to 96.4 in Carroll County. For debt service the range was from .2 in Carroll to 13.6 per cent in Frederick County and for capital outlay from 3.4 in Carroll County to 38.5 per cent in Baltimore County.

Comparisons of the averages for the counties of each state indicate that in Pennsylvania 5.9 per cent more was spent for the items of current expense, judged by the average of the seven counties, 5.5 per cent more for debt service and 11.4 per cent less for capital outlay than in the average county in the Maryland group. Baltimore County's high percentage for capital outlay and, consequently, a correspondingly low percentage for current expense may be attributed largely to the fact that the county expended for the former purpose a large part of a $2,000,000 bond issue authorized by the 1929 legislature. Stated another way, four out of seven Maryland counties (Frederick, Baltimore, Washington and Calvert) spent a larger percentage of their funds for capital outlay than did their similar counties (Bradford, Chester, Crawford and Pike) in Pennsylvania.

TABLE XXVII

PER CENT DISTRIBUTION OF EXPENDITURES FOR CURRENT EXPENSE, DEBT SERVICE AND CAPITAL OUTLAY IN THE SELECTED COUNTIES FOR THE YEAR 1929-1930

Pennsylvania

Counties	Per cent of expenditures used for		
	Current expense	Debt service	Capital outlay
1. Adams	80.0	14.1	5.9
2. Bradford	80.8	12.3	6.9
3. Chester	67.3	22.6	10.1
4. Clearfield	79.2	11.4	9.4
5. Crawford	72.0	8.8	19.2
6. Greene	67.1	20.0	12.9
7. Pike	82.3	13.2	4.5
Average	73.4	15.5	11.1

Maryland

Counties	Per cent of expenditures used for		
	Current expense	Debt service	Capital outlay
1. Carroll	96.4	.2	3.4
2. Frederick	70.4	13.6	16.0
3. Baltimore	50.4	11.1	38.5
4. Allegany	84.4	11.5	4.1
5. Washington	67.0	6.9	26.1
6. Garrett	77.9	12.7	9.4
7. Calvert	87.9	4.4	8.7
Average	67.5	10.0	22.5

On the other hand five Pennsylvania counties (Adams, Pike, Chester, Crawford and Greene) devoted a larger share of their expenditures to debt service, due both to larger temporary loans and to previous bonded indebtedness.

Four of the Maryland counties, Carroll, Allegany, Garrett and Calvert, spent a larger portion of their funds for current expense than their similar counties in Pennsylvania.

The Details of Expenditures for Current Expense

Further inquiry into the reasons for the larger average percentage of expenditures for current expenses in the Pennsylvania counties makes necessary a more detailed analysis of these figures.

Such an analysis is presented in Tables XXVIII and XXIX.

An examination of the average percentages for each group of counties, reveals immediately noticeable differences in the figures for general control, instruction and fixed charges. In each group the smallest counties, Pike in Pennsylvania and Calvert in Maryland, show the widest deviations from the averages for the items of general control. This is probably due to the fact that in the smaller counties, the salaries and expenses of the administrative and supervisory staff and their activities loom larger in relation to the total expenditures for education.

Barnes[1] has compared the detailed expenditures for the items of general control in Chester County, Pennsylvania and Baltimore County, Maryland, for the year 1923-1924, using only fourth class districts in the first named. He cites evidence[2] to show that for each teacher employed, it cost in that year in Chester County $160 for general control as compared to $70 in Baltimore County. He also shows that the "business" side of general control in Chester County bears about a 4 to 1 ratio to the "professional" side while in Baltimore County the "professional" slightly overbalances the "business" side.[3]

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[1]Barnes, Chester H., "Financial Aspects of a County Unit of Administration for Pennsylvania", Schoolmen's Week Proceedings, Vol. XII, pp. 51-29, University of Pennsylvania 1925.

[2]Ibid., p. 56.

[3]Ibid., p. 54.

TABLE XXVIII

PER CENT DISTRIBUTION OF EXPENDITURES FOR THE ITEMS OF CURRENT EXPENSE IN THE SELECTED PENNSYLVANIA COUNTIES FOR THE YEAR 1929-1930

Counties	Per cent of expenditures used for						Total current expense
	General control	Instruction	Auxilliary agencies	Operation	Maintenance	Fixed charges	
1. Adams	5.6	79.1	3.8	5.8	2.0	3.6	100
2. Bradford	6.8	65.7	11.8	7.2	2.4	6.1	100
3. Chester	7.7	68.6	6.8	9.2	4.1	3.6	100
4. Clearfield	6.7	76.7	3.1	6.5	3.3	3.7	100
5. Crawford	6.1	67.5	9.5	7.3	3.8	5.8	100
6. Greene	6.5	72.0	5.7	7.3	4.1	4.4	100
7. Pike	8.8	60.2	20.4	6.5	1.7	2.4	100
Average	6.8	70.6	7.2	7.5	3.4	4.5	100

TABLE XXIX

PER CENT DISTRIBUTION OF EXPENDITURES FOR THE ITEMS OF CURRENT EXPENSE IN THE SELECTED MARYLAND COUNTIES FOR THE YEAR 1929-1930

Counties	Per cent of expenditures used for						Total current expense
	General control	Instruction	Auxilliary agencies	Operation	Maintenance	Fixed charges	
1. Carroll	3.3	75.4	9.3	5.1	4.0	2.9	100
2. Frederick	3.1	77.7	9.1	6.8	2.2	1.1	100
3. Baltimore	2.9	78.8	6.5	8.4	2.3	1.1	100
4. Allegany	2.4	79.3	6.5	7.5	3.5	.8	100
5. Washington	2.3	82.9	4.6	6.0	3.3	.9	100
6. Garrett	4.4	76.6	9.3	5.2	3.8	.7	100
7. Calvert	7.8	68.9	15.7	4.7	2.2	.7	100
Average	3.0	78.6	7.3	6.9	3.0	1.2	100

The Pennsylvania Committee on Appropriations and Subsidies[4] also made a very careful study of the detailed expenditures for general control in seven Pennsylvania counties in 1923, from which study the one previously quoted is a digest, and states[5]

> "that 28 per cent of all money expended for general control (in Pennsylvania) is distributed to pay tax collectors, 9.6 per cent to pay secretaries' salaries, 7.4 per cent to pay treasurers' salaries, 1.7 per cent auditors' salaries and 3.0 per cent to pay for legal advisors. The relatively small per cent left is partly expended for professional services."

Quoting further, the report states[6] "—figures for general control for the entire state (Pennsylvania) exclusive of the cost of assessment, were enormous and unduly proportioned in certain items."

The data in Tables XXVIII and XXIX also indicate that the average per cent of expenditures devoted to fixed charges for the seven Pennsylvania counties is 4.5 while for the Maryland group it is 1.2. It seems evident that this is accounted for by the amounts which the school districts of Pennsylvania must contribute annually to the Teachers' Retirement Fund and bears no relation to the unit of administration.

It is quite significant that the average per cent of all current expense expenditures devoted to instructional costs in the Maryland counties is 78.6 while in the Pennsylvania group the comparable figure is 70.6. It is obvious that with a larger percentage of expenditures being devoted to general control in Pennsylvania and a larger percentage to fixed charges, there will be less money available for instruction, the most important division of the budget from an educational point of view providing, of course, that the remaining budgetary divisions do not vary greatly from the norm. In the case of the larger expenditures for general control in Pennsylvania, it seems probable that the Maryland system of central county administration,

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[4]King, L. A., and others, "Educational Surveys"—Reports of the Commitee Appointed by Gifford Pinchot, Governor—March 1925.
[5]Ibid., p. 116.
[6]Ibid., p. 117.

if adopted, would bring the item to a figure closely similar to the one for that state.

No significant differences are noted in the average percentage of expenditures for each group devoted to auxiliary agencies, operation and maintenance. Wide deviations in the items of auxiliary agencies for individual counties are caused in most cases by unusual service being rendered in the transportation of children. Here again, this looms largest in the smallest counties, Pike and Calvert.

An analysis of the items of instruction, operation, maintenance and auxiliary agencies in which a separate accounting is kept in Maryland by white and colored schools reveals only very slight differences in the average percentages of expenditures for each system of schools. These data are presented in Table XXX. A slightly higher percentage of the total was spent in 1929-1930 for the items of instruction, operation and maintenance for the colored schools than for the white but for auxiliary agencies the white schools received 7.6 per cent and the colored 3.7 per cent. Consolidation for the colored schools seems to be lagging ten years or more behind that for the white schools and consequently less money is being spent for the transportation of the children of the former. Library facilities, health service, etc., also receive less attention than in the white schools. Throughout, however, the differences are much less than might be anticipated.

Non-Resident High School Tuition

In Maryland all secondary schools are maintained and supported by the county at large except in the case of schools at or near the county line which may be maintained jointly by the two counties concerned as described in Chapter III of this study. A child is, in general, entitled to attend the most convenient high school offering the type of work which he desires to pursue.

A non-resident high school student in Maryland is, therefore, a pupil resident in one county who attends school in another county under the provisions of By-law 11, Paragraph 48, Chapter 4 of the Maryland Public School Laws as previously quoted.

TABLE XXX

PER CENT DISTRIBUTION OF THE EXPENDITURES FOR THE ITEMS OF CURRENT EXPENSE FOR WHICH A SEPARATE ACCOUNTING IS KEPT FOR WHITE AND COLORED SCHOOLS IN THE SELECTED MARYLAND COUNTIES FOR THE YEAR 1929-1930

Counties	Per cent of expenditures used for								Totals	
	Instruction		Operation		Maintenance		Auxilliary agencies			
	White	Colored	White	Colored	White	Colored	White	Colored	White	Colored
1. Carroll	79.0	79.1	5.3	7.0	5.9	4.4	9.8	9.5	100	100
2. Frederick	80.8	83.7	6.8	9.9	2.4	2.9	10.0	3.5	100	100
3. Baltimore	81.7	82.8	8.8	10.0	2.3	4.5	7.2	2.7	100	100
4. Allegany	82.5	87.4	7.8	8.4	3.8	1.3	5.9	2.9	100	100
5. Washington	85.7	85.2	6.2	6.3	3.4	3.3	4.7	5.2	100	100
6. Garrett*	80.2	....	5.5	...	4.4	...	9.9	...	100	...
7. Calvert	71.9	85.7	5.5	4.2	1.2	6.2	21.4	3.9	100	100
Average	81.9	83.7	7.2	8.6	3.3	4.0	7.6	3.7	100	100

*Maintains no separate schools for colored children.

The amounts expended annually for this service, both for high and elementary schools, in the state are not large. They are presented in Table XXXI.

In no case do these expenditures represent even a large fraction of one mill of the total county school tax rate.

In Pennsylvania, the situation is an entirely different one.

TABLE XXXI

NON-RESIDENT TUITION PAID TO ADJOINING COUNTIES AND STATES BY THE SELECTED MARYLAND COUNTIES FOR THE YEAR 1929-1930

Counties	Tuition Paid
1. Carroll	$428.77
2. Frederick	5,103.53
3. Baltimore	16,266.63*
4. Allegany	634.53
5. Washington	1,206.94
6. Garrett	3,812.40
7. Calvert	.....

*Figures are rather large because no high school for colored children is maintained in the county, tuition being paid to Baltimore City.

Each district maintains its own schools and may or may not support a high school. In many cases the local district, township, borough or independent district, may be entirely too small to provide such secondary school opportunities.

In view of the legal provisions described in Chapter III of this thesis and for the purpose of this study a non-resident high school student in Pennsylvania is one who resides in a district furnishing no high school facilities or incomplete ones and who attends a high school in another district, either within or without the county, for those facilities which are not provided in his own district.

The expenditures for this phase of the educational servcie in the counties of the state and for the individual districts are in many cases unusually high. Then, too, it is a constantly mounting factor, first, because of the increased high school enrollments which have been observed the country over and,

secondly, because the tuition figures charged by the districts accepting the non resident students have increased, largely on account of higher salaries and the increased facilities provided.

The legislature of 1931 made some provision for State Aid in an attempt to relieve the burden upon the very poor districts. The Act is as follows:[7]

> "The Commonwealth shall reimburse a school district, with a true valuation of assessable property per teacher of less than one hundred thousand dollars, for high school tuition, when such district is required to pay tuition for pupils attending high school in another district: Provided, that the percentage of the minimum salaries of teachers paid by the Commonwealth is higher in the school district where the pupils reside than in the district where they attend high school. The amount of State reimbursement for high school tuition shall be the percentage of such tuition as is equal to the excess in the percentage of teachers' salaries paid by the Commonwealth in the district where the pupils reside over the percentage of teachers' salaries paid by the Commonwealth in the district where the pupils attend: Provided, that the amount paid by the Commonwealth to a school district for the tuition of any high school pupil shall not exceed twenty dollars ($20.00) a year."

As far as the law goes, its affect is good but it should go much farther to relieve the inequalities shown in Tables XXXII to XXXVIII.

The granting of aid by the state for the tuition of non-resident high school pupils is carried out in a number of states. Abel, of the United States Office of Education writes,[8]

> "To those districts that can not offer secondary instruction, it usually takes the form of the payment or reimbursement of the tuition charged their secondary students when attending high school in other districts. Two-thirds of the amount spent by any town in Maine for the tuition of its pupils in the secondary schools of another town is provided from State funds."

He also cites Massachusetts, Minnesota, New Jersey, New York and Vermont as granting state aid for this particular project.

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[7]School Laws of Pennsylvania, Section 1711A.

[8]Abel, J. F., "State Aid to Weak Schools", Rural School Leaflet, No. 7 p. 11, September, 1922, Office of Education, Washington, D. C.

TABLE XXXII

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF ADAMS COUNTY, PA.
1929-1930

1 District	2 Amount expended for non-resident high school tuition	3 Mill levy necessary to raise amount in column 2	4 Total millage for all school purposes	5 Ratio of millage for non-resident high school tuition to total millage Col. 3÷Col. 4 in per cent
[3]Abbottstown Boro	$270.00	1.5	11	13.6
Bendersville Boro	1159.00	10.4	20	52.0
Berwick	1654.00	5.9	15	39.3
Butler	6633.85	12.3	16	76.2
Conewago, Ind	141.75	2.7	11	24.5
Conewago Twp	2338.00	2.9	8	36.2
Cumberland	2764.25	4.1	15	27.3
[3]E. Berlin Boro	260.00	.7	11	6.3
[3]Fairfield Boro	265.50	1.7	17	10.0
Franklin	7833.51	7.5	13	57.6
Freedom	360.00	1.6	15	10.6
Hamilton	2293.14	5.6	10	56.0
Hamiltonban	1339.25	2.3	17	13.5
Highland	1360.50	5.5	11	50.0
Huntingdon	3070.03	5.3	14	37.8
Latimore	1530.32	3.3	11	30.0
Liberty	1767.66	6.2	12	51.6
McSherrystown Boro	90.00	.2	0	....
Menallen	4720.90	7.3	18	40.5
Mt. Joy	1780.79	3.4	12	28.3
Mt. Pleasant	1512.00	1.9	8	23.7
Oxford	1134.12	2.6	7	37.1
Reading	1371.04	2.5	12	20.8
Straban	3616.90	5.4	14	38.1
Tyrone Boro	1858.75	4.9	15	32.6
Union, Ind	793.50	5.9	7	84.3
Union	156.40	.2	10	2.0
Total	52075.16			

Range	0-84.3
Median	32.85
Q^1	21.00
Q^3	52.00

([3])Maintains a 3 yr. high school.

TABLE XXXIII

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF BRADFORD COUNTY, PA. 1929-1930

1 District	2 Amount expended for non-resident high school tuition	3 Mill levy necessary to raise amount in column 2	4 Total millage for school purposes	5 Ratio of millage for non-resident high school tuition to total millage Col. 3÷Col. 4 in per cent
Alba	$181.19	3.1	18	17.2
Armenia	439.97	1.8	25	7.2
Asylum	962.09	5.9	13	45.4
Athens Twp	2,997.00	2.3	15	15.3
Barclay	81.00	6.5	20	32.5
Burlington Boro	115.56	2.3	10	23.0
[2]Burlington Twp	556.01	2.1	20	10.5
Canton Twp	7,035.16	14.2	20	71.0
Columbia	2,702.21	5.3	20	26.5
Doty Hill, Ind	150.00	4.2	20	21.0
Franklin	1,195.15	7.1	18	39.4
Granville	3,621.72	10.4	20	52.0
Herrick	243.00	.9	18	5.0
LeRoy	1,887.04	7.1	14	50.7
Litchfield	888.00	3.0	18	16.6
[3]Monroe Boro	567.00	5.1	30	17.0
Monroe Twp	1,594.61	5.6	20	28.0
N. Towanda	2,347.00	16.1	23	70.0
[3]Orwell	387.00	1.1	14	7.8
[2]Overton, Ind	360.00	11.1	16	69.4
Ridgebury	1,323.00	3.5	12	29.2
Rome Boro	584.51	7.3	13	56.1
[3]Rome Twp	63.00	.2	20	1.0
Sheshequin	4,969.56	10.6	15	70.7
S. Creek	2,623.00	11.1	25	44.4
[2]S. Waverly Boro	1,692.00	2.3	35	6.5
Springfield	2,479.72	4.3	18	23.9
Standing Stone	920.65	3.8	12	31.6
Stevens	679.00	4.4	12	36.6
Sylvania	675.84	13.8	32	43.1

TABLE XXXIII (CONTINUED)

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF BRADFORD COUNTY, PA. 1929-1930

1 District	2	3	4	5
Terry	957.75	4.3	20	21.5
Troy Twp	5,427.00	9.3	14	66.4
Tuscarora	1,681.55	5.7	16	35.6
Ulster Twp	1,532.50	7.4	15	49.3
[3]Warren	695.00	1.9	16	11.8
Wells	2,081.70	6.2	17	36.4
Windham	1,393.00	4.4	14	31.4
[2]W. Burlington	488.87	1.7	17	10.0
Wilmot	1,442.00	4.3	15	28.6
[4]Wyalusing Twp	716.80	1.6	18	8.8
Wysox	2,772.55	6.1	18	33.9
Total	$63,509.71			

Range	1.0–71.0
Median	29.37
Q^1	16.07
Q^3	44.37

([2])Maintains a 2 yr. high school.
([3])Maintains a 3 yr. high school.
([4])Maintains a 4 yr. high school.

TABLE XXXIV

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF CHESTER COUNTY, PA. 1929-1930

1 District	2 Amount expended for non-resident high school tuition	3 Mill levy necessary to raise amount in column 2	4 Total millage for school purposes	5 Ratio of millage for non-resident high school tuition to total millage Col. 3 ÷ Col. 4 in per cent
[2]Atglen Boro	$1,284.00	3.6	15	24.0
[1]Birmingham	306.00	.7	15	4.6
Caln	3,615.00	3.4	14	24.3
Charlestown	1,887.00	3.1	14	22.1
East Bradford	6,324.60	5.6	9	62.2
[2]East Brandywine	1,314.00	2.8	10	28.0
East Caln	800.00	2.2	11	20.0
East Coventry	3,581.04	5.4	18	30.0
East Fallowfield	5,990.71	6.5	17	38.8
East Goshen	2,403.75	2.8	9	31.1
[2]East Nantmeal	846.50	2.9	13	22.3
East Nottingham	3,242.50	4.3	12	35.8
East Pikeland	5,543.20	9.9	19	52.1
East Vincent	3,260.00	5.0	18	27.7
East Whiteland	5,053.16	3.5	14	25.0
Elk	1,103.49	3.2	10	32.0
Elverson Boro	937.04	4.5	7	64.3
Franklin	2,016.63	4.2	8	52.5
Highland	3,121.75	5.7	12	47.5
Independent No. 1	2,817.00	5.9	8	73.7
Kennett	4,790.00	4.1	7.5	54.6
London Britain	834.39	2.2	8	27.5
Londonderry	2,224.00	5.9	12	49.1
Lower Oxford	5,698.34	8.3	14	59.3
[1]Malvern Boro	5,983.55	4.8	16	30.0
New Garden	6,282.00	3.8	9	42.2
[2]New London	240.00	.5	10	5.0
Penn	2,064.00	4.4	8	55.0
[1]Pennsbury	1,520.00	1.3	13	10.0
Sadsbury	2,500.00	4.1	14	29.3

TABLE XXXIV (CONTINUED)

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF CHESTER COUNTY, PA. 1929-1930

1 District	2	3	4	5
Schuylkill	4,394.93	5.4	18	30.0
South Coatesville	5,286.00	1.3	8	16.2
South Coventry	1,910.00	6.0	18	33.3
Thornbury	703.00	2.2	12	18.3
Union Independent	569.00	2.2	8	27.5
Upper Oxford	2,568.18	4.1	8	51.2
Upper Uwchlan	2,541.89	5.4	15	36.0
Uwchlan	1,953.75	4.8	10	48.0
Valley	6,345.10	2.4	12	20.0
[3]Wallace	648.00	1.5	10	15.0
[4]Warwick	609.00	1.0	17	5.9
West Bradford	5,302.90	7.0	13	53.8
West Brandywine	2,373.00	5.3	12	44.1
West Caln	3,463.00	6.7	15	44.6
West Fallowfield	419.28	.8	14	5.7
West Goshen	7,617.65	3.9	10	39.0
West Nantmeal	2,208.76	4.1	10	41.0
West Nottingham	1,175.00	3.5	13	26.9
West Pikeland	3,031.50	6.7	9	74.4
West Sadsbury	2,530.07	5.3	10	53.0
Westtown	3,140.00	3.9	12	32.5
West Vincent	3,738.82	6.3	12	52.5
West Whiteland	2,990.99	3.1	9	34.4
Willistown	6,419.90	2.6	12	21.6
Total	$158,523.57			

Range	4.6–74.7
Median	34.16
Q^1	23.29
Q^3	49.87

(1)Maintains a 3 yr. Junior High School.
(2)Maintains a 2 yr. High School.
(3)Maintains a 3 yr. High School.
(4)Maintains a Jr. and Sr. High School.
(5)Maintains a 4 yr. Junior High School.

TABLE XXXV

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF CLEARFIELD COUNTY, PA. 1929-1930

1 District	2 Amount expended for non-resident high school tuition	3 Mill levy necessary to riase amount in column 2	4 Total millage for school purposes	5 Ratio of millage for non-resident high school tuition to total millage Col. 3÷Col. 4 in per cent
[4]Beccaria	$284.07	.4	30	1.3
Bell	4,511.33	17.0	30	56.4
Bloom	1,815.12	16.6	25	66.4
Boggs	1,662.86	6.3	29	21.7
Bradford	5,620.76	7.6	29	29.6
[4]Brady	149.75	.2	229	.7
[2]Brisbin Boro	1,830.35	36.9	35	105.4
[3]Burnside Boro	34.93	.3	35	.8
Burnside Twp	5,357.34	16.1	32	50.3
Chest	603.80	2.4	12	20.0
Chester Hill Boro	1,913.10	4.3	26	15.8
[4]Cooper	337.50	.6	59	1.0
Covington	71.70	.6	13.5	4.4
Decatur	3,697.25	7.7	35	22.0
Ferguson	1,341.04	6.7	16	41.9
Girard	619.29	4.3	15	28.6
Glen Hope Boro	200.00	5.9	30	19.6
Goshen	516.86	4.1	14.5	28.2
Graham	539.92	5.8	15	38.6
Grampian	2,041.84	22.9	35	65.4
Gulich	3,309.11	11.3	35	32.3
[4]Huston	372.24	.7	27	2.5
Jordan	1,784.31	7.0	16	43.7
Karthaus	398.58	1.7	16	10.6
Knox	1,104.00	5.1	35	14.5
Lawrence	15,306.62	18.9	35	54.0
Lumber City	278.29	3.3	28	11.8
New Washington Boro	148.19	4.5	32	14.0
Penn	1,990.95	10.5	25	42.0
[1]Pike	5,714.67	11.1	35	31.7

TABLE XXXV (CONTINUED)

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF CLEARFIELD COUNTY, PA. 1929-1930

1 District	2	3	4	5
[3]Ramey Boro	234.00	1.9	45	.4
Troutville Boro	896.45	15.8	28	55.3
Union	2,068.37	17.6	23	76.5
Wallaceton Boro	133.00	2.0	25	8.0
[2]Westover	183.60	1.6	26	6.1
[4]Woodward	287.97	1.5	35	4.3
Total	$67,350.16			

Range	.4–105.4
Median	23.33
Q^1	9.00
Q^3	46.66

([1])High and Elementary tuition.
([2])Maintains a 2 yr. High School.
([3])Maintains a 3 yr. High School.
([4])Maintains a 4 yr. High School.

TABLE XXXVI

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF CRAWFORD COUNTY, PA. 1929-1930

1 District	2 Amount expended for non-resident high school tuition	3 Mill levy necessary to raise amount in column 2	4 Total millage for school purposes	5 Ratio of millage for non-resident high school tuition to total millage Col. 3 ÷ Col. 4 in per cent
Athens	$1,709.50	4.8	10	48.0
[3]Beaver	774.23	1.6	12	13.3
[2]Blooming Valley	247.50	3.1	16	19.3
[4]Cambridge	3,288.00	7.3	12	60.8
[3]Centerville	141.06	1.0	20	5.0
[2]Cussewago	2,071.60	3.6	12	30.0
East Fairfield	2,381.64	10.9	15	72.6
East Fallowfield	182.30	.5	27	1.9
East Mead	1,912.00	5.5	25	22.0
Fairfield	986.50	3.4	15	22.6
Geneva	99.00	1.7	11	15.4
Greenwood	2,024.12	4.4	9	48.8
[2]Hayfield	2,978.80	4.9	14	35.0
[3]Hydetown Boro	290.13	2.8	15	18.6
Oil Creek	4,592.28	7.7	12	64.2
Penn Line, Ind	184.14	3.1	15	20.6
Pine	3,771.71	17.8	20	89.0
Putnam, Ind	168.71	4.7	18	26.1
[4]Randolph	229.04	.3	25	1.2
[3]Richmond	1,002.00	2.0	15	12.6
[3]Rockdale	506.00	1.1	20	5.5
Rome	2,044.37	4.6	12	38.3
Sadsbury	2,627.12	2.8	6	46.6
Saegertown	197.00	.7	20	3.5
South Shenango	1,143.96	2.7	15	18.0
Spring	4,226.44	6.2	12	51.6
Steuben	1,142.39	4.2	15	28.0
Summerhill	3,415.48	7.6	13	58.5
[4]Summit	478.99	.6	11	5.4
Union, Ind	70.53	1.6	15	10.6

TABLE XXXVI (CONTINUED)

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF CRAWFORD COUNTY, PA. 1929-1930

1 District	2	3	4	5
Union	1,336.50	5.9	14	42.1
Venango Boro	1,012.00	11.6	18	64.4
Venango	1,434.56	6.7	24	27.9
Vernon	7,040.60	6.1	16	38.1
Wayne	1,579.34	3.6	12	30.0
W. Fallowfield	1,987.11	8.1	18	45.0
W. Mead	4,680.50	5.5	20	27.5
W. Shenango	217.00	1.3	10	13.0
Woodcock Boro	72.00	2.2	15	14.6
Woodcock Twp	2,751.00	4.7	15	31.3
Total	$66,277.15			

Range	1.2–89.0
Median	27.14
Q^1	14.44
Q^3	44.00

(2)Maintains a 2 yr. High School.
(3)Maintains a 3 yr. High School.
(4)Maintains a 4 yr. high school.

TABLE XXXVII

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF GREENE COUNTY, PA 1929-1930

1 District	2 Amount expended for non-resident high school tuition	3 Mill levy necessary to raise amount in column 2	4 Total millage for school purposes	5 Ratio of millage for non-resident high school tuition to total millage Col. 3÷Col. 4 in per cent
Carmichaels	$2,873.00	10.0	20	50.0
Center	396.00	.2	10	2.0
Clarksville	661.60	5.1	13	39.3
(4)Cumberland	433.30	.1	10	1.0
Dunkard	8,113.96	.2	9	2.2
Franklin	9,494.00	2.4	10	24.0
Gilmore	828.50	.8	6	13.3
Graysville	1,000.00	4.3	14	30.7
Greene	1,515.12	.5	5	10.0
Greensboro	1,444.06	5.8	15	38.7
Jackson	1,530.00	1.4	10	14.0
Jefferson Boro	1,425.00	5.4	17	31.8
(4)Jefferson Twp	343.20	.1	10	1.0
(4)Monongahela	351.00	.1	10	1.0
Morgan	6,288.41	1.4	10	14.0
(4)Morris	595.00	.3	10	3.0
New Freeport	1,580.27	4.5	6.5	69.1
Perry	3,004.35	1.1	9	12.2
Rices Landing Boro	2,237.45	5.1	13	39.3
(4)Richhill	99.00	.1	10	1.0
Springhill	318.00	.4	10	4.0
Washington	3,641.50	1.7	10	17.0
Wayne	1,386.00	.5	10	5.0
Whitely	710.31	.3	4	7.5
Total	50,269.03			
Range				1–69.1
Median				13.33
Q^1				6.00
Q^3				32.00

(4)Maintains a 4 yr. High School.

TABLE XXXVIII

ANALYSIS OF NON-RESIDENT HIGH SCHOOL TUITION COSTS AND EQUIVALENT MILLAGES IN RELATION TO TOTAL MILLAGES FOR ALL SCHOOL PURPOSES FOR THE DISTRICTS OF PIKE COUNTY, PA. 1929-1930

1 District	2 Amount expended for non-resident high school tuition	3 Mill levy necessary to raise amount in column 2	4 Total millage for school purposes	5 Ratio of millage for non-resident high school tuition to total millage Col. 3÷Col. 4 in per cent
Blooming Grove	$327.00	.8	5	16.0
Delaware	1,192.00	1.7	13	13.0
Dingman	1,000.00	2.4	10	24.0
Lackawaxen	872.50	1.2	15	8.0
Lehman	358.00	.5	13	3.8
Palmyra	1,500.00	3.2	10	32.0
Porter	123.50	.4	6	6.6
[2]Shohola	350.00	.8	10	8.0
Westfall	1,450.00	5.0	10	50.0
Total	7,173.00			
Range				3.8–50.0
Median				12.50
Q^1				5.62
Q^3				27.50

([2])Maintains a 2 yr. High School.

The method adopted herein to analyze the costs of non-resident high school tuition paid to other districts has been to calculate the tax rate in mills that would be necessary to raise the amount required, although no separate tax is levied for the purpose, and then to determine the relation of this to the total millage levied for all school purposes in the district.

Tables XXXII to XXVIII present the data for each district in each of the seven Pennsylvania counties which paid non-resident high school tuition in 1929-30. An examination

of these statistics clearly reveals the inequalities of the burden of costs for secondary education borne by the districts in each county. The median percentages of the proportionate costs of non-resident high school tuition to the total costs of the educational program measured in terms of taxation range from 12.5 per cent in Pike County to 34.16 per cent in Chester County.

In each county except Greene and Pike there are districts where more than 70 per cent of the proceeds of the mill levy for school purposes goes to pay this item of expenditure.

No determination has ever been made to the knowledge of the writer, of what should be a fair amount of the total revenues to expend for this service but it is clearly evident that under the district system those districts which maintain good elementary schools, graduating a large percentage of their enrollments and encouraging high school attendance, are penalized by the amounts which they must expend for the service received and rendered by another district.

Transportation

An exceedingly important measure of the equality of educational opportunity furnished in any county or district is the amount and kind of transportation provided for those children who live at points more or less remote from the facilities available. Certainly there is no equality of opportunity where the desired type of school is set up too far from the homes of many of the children concerned and proper transportation is not furnished at public expense.

In the early days of our country's history when the attempt was made to have a school within walking distance of every home, the matter of the transportation of pupils was obviously not a particularly important one, except in the cases of individual families. However, with the disappearance of the one-room school and the advent and progress of consolidation, the need for this service has come to be a marked one in many localities. Transportation goes hand in hand with consolidation.

Johns[9] in a recent study states that

> "The transportation of school children at public expense has advanced from the status of non-inclusion in the legitimate tax program of the United States in 1869 to universal acceptance at the present time. Expenditures have mounted until in 1926-1927 approximately forty millions of dollars were spent for transporting 1,500,000 public school children. This growth has been due largely to the desire of the American rural people to provide an educational offering for their children equivalent to that of urban sections."

Modern transportation is expensive and especially is this true in connection with secondary education where children are, as a general thing, transported longer distances.

Speaking of California, Evans[10] makes the following observation, "In many union high school districts, the expense of transportation is the third item in size in the annual budget, being exceeded only by the expenditures for teachers' salaries and buildings."

Although it is natural to expect that those states with small ratios of one room schools should have the large amounts of transportation, all other factors being equal, comparable data is exceedingly difficult to obtain. This situation is faced, first, because of the lack of any uniform and accurate system of accounting and, secondly, because of the presence of certain variable factors which are, at the present time at least, impossible of measurement.

Evans[11] cites the following as the probable causes which bring about variations in costs.

a. Lengths of routes and distances children are transported.
b. Number of children for whom transportation is furnished.
c. Type of equipment used.
d. Ownership of equipment or letting contracts for transporting children.

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[9]Johns, Roe Lyell: State and Local Administration of School Transportation, p. 128. Teachers College Contributions to Education No. 330. Columbia Univ.

[10]Evans, Frank O., "The Factors Affecting the Cost of School Transportation in California", p. 14.
Unpublished Ph.D. Thesis of the University of California, May 1929.

[11]Evans, Frank O., "Factors Affecting the Cost of School Transportation in California", p. 3.
United States Office of Education, Bulletin, 1930, No. 29.

e. Age of children—elementary versus high school.
f. Density of school population.
g. Size of the school district.
h. Topography of the country and type of roads in use.
i. Types of persons used as drivers and wages paid.
j. Methods used in purchasing and providing for service.
k. System of accounting in use.
l. Policy used in determining those entitled to transportation.

It is obvious that the influences of several of the above factors do not lend themselves to objective measurement, as for example "the topography of the country and the types of roads."

Several attempts[12] have been made to incorporate the density of school population as a definite controlling factor in the measurement of transportation need, none of which has proved entirely efficient in different situations. Evans[13] reports using the measure thus developed in estimating the need in two California counties. In the first case the "results checked closely with the transportation furnished" and in the second and larger county with much unimproved land "the method was found to have little application." It seems evident that two counties with very similar densities of general and school population might have very different transportation needs even if all other conditions were equal, for in one case the population might be localized in small villages or towns and in the other it might be rather evenly distributed. The first is the case in many Pennsylvania mountainous counties. In such situations immediate transportation needs may not be great while in the other case cited, especially if there existed any large amount of consolidation, the need for transportation would probably be rather large.

Evans[14] comments upon this situation as follows,

> "In order to establish any definite relationship between density of population and the requirements in the way of transportation it

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[12]Johns, R. L., op. cit.
Burns, R. L.: Measurement of Need for Transporting Pupils.
[13]Evans, F. O., op. cit., p. 33.
[14]Ibid., p. 33.

would be necessary to consider not the total areas of the districts or counties under consideration but that part of the area which is inhabited, a thing which would be almost impossible to obtain."

Data available from the Office of Education[15] indicate the following comparable figures for Pennsylvania and Maryland.

TABLE XXXIX

DATA PERTAINING TO THE TRANSPORTATION OF PUPILS IN PENNSYLVANIA AND IN MARYLAND—1927-1928

Items compared	Pennsylvania	Maryland
Total number of school buildings in State	13,841	2,197
Number of one-room schools	7,821	1,206
Number of teaching positions	55,559	8,230
Per cent of teachers in one-room schools	14.1	14.7
Number of pupils transported at public expense	39,728	15,907
Total amount of public funds spent for transportation	$1,974,674	$463,380

It is significant from Table XXXIX that Pennsylvania and Maryland have approximately the same percentage of teachers in one-teacher schools. It is important to note also that while Maryland transported somewhat more than one-third as many pupils as Pennsylvania it performed that service at approximately one-fourth the cost. How much of this difference is attributed to the size of the unit and how much to other unmeasurable factors it is, of course, impossible to say at the present time.

In Table XL are presented data concerning the numbers of pupils transported and the costs of such transportation on a total yearly basis and a per pupil basis in the selected Pennsylvania counties. Table XLI presents similar data for the Maryland group.

An interesting fact is noted in the very close similarity between the total numbers of pupils transported in the two groups of counties—9,050 for Pennsylvania and 9,021 for the

[15]Covert, Timon, "Consolidation of Schools and Transportation of Pupils 1927-1928", United States Office of Education. Circular No. 3, Jan., 1930.

Maryland group, yielding an average of 1,292.9 in the first case and 1,288.7 in the second.

Reference to Tables II and III in Chapter II indicates that in the Pennsylvania group of counties there were 87,313 pupils belonging and in the Maryland group 71,069. Thus the selected Pennsylvania counties as a group were transporting one out of every 9.6 pupils and those of Maryland one out of every 7.8 for the school year 1929-1930.

It is quite significant, therefore, that this service costs in the Pennsylvania counties $356,351.35 with an average of $50,907.33, while in the Maryland selection approximately the same service costs but $247,058.00 or an average of $35,294.00.

TABLE XL

NUMBER OF PUPILS TRANSPORTED AND THE COSTS OF TRANSPORTATION IN THE SELECTED PENNSYLVANIA COUNTIES FOR THE YEAR ENDING JULY 7, 1930

Counties	Number of pupils transported	Total cost for year	Cost per pupil per year	Average cost per pupil per day for all districts
1. Adams	526	$16,229.65	$30.85	$.359
2. Bradford	2,253	109,166.49	48.45	.484
3. Chester	3,450	97,598.92	23.07	.197
4. Clearfield	440	22,008.67	50.00	.344
5. Crawford	1,687	78,995.90	46.53	.341
6. Greene	354	23,952.87	67.66	.487
7. Pike	340	26,398.85	77.64	.526
Total	9,050	356,351.35		
Average	1,292.9	50,907.33	39.37	.391

This difference is somewhat more significant when it is noted that the school terms in the Maryland counties are with but three exceptions longer than in the Pennsylvania group, the exceptions being in the colored elementary and high schools in Calvert County and in the colored elementary schools of Frederick County. In each case, however, these are above the Pennsylvania minimum for elementary schools, 160 days.

TABLE XLI

NUMBER OF PUPILS TRANSPORTED AND THE COSTS OF TRANSPORTATION IN THE SELECTED MARYLAND COUNTIES FOR THE YEAR ENDING JULY 31, 1930

Counties	Number of pupils transported	Total cost for year	Cost per pupil per year	*Cost per high school pupil per year	*Cost per elementary school pupil per year	**Cost per high school pupil per day	***Cost per elementary school pupil per day
1. Carroll	1,090	$34,691.00	$31.83	.....	$31.83	.....	$.171**
2. Frederick	1,806	45,781.00	25.35	$31.65	24.73	$.172**	.135**
3. Baltimore	2,780	57,056.00	20.52	26.88	17.86	.190	.091**
4. Allegany	1,355	42,352.00	31.26	36.91	30.46	.190	.157
5. Washington	814	25,132.00	30.87	26.13	32.56	.141	.176
6. Garrett	768	27,468.00	35.77	36.47	35.18	.192	.189
7. Calvert	408	14,578.00	35.73	31.22	38.61	.181**	.243**
Totals	9,021	247,058.00					
Average	1,288.7	35,294.00	27.39	30.25	26.61		

*Data from 1930 Report, Maryland State Department of Education, Table 173, p. 265.

**White pupils only.

***Calculated from data in above mentioned 1930 Report, Tables 59, 110, VII.

The same situation must also be kept in mind in interpreting the per pupil cost per year which shows a much wider range in the Pennsylvania counties—$23.07 per pupil per year in Chester to $77.64 in Pike County. The average for the seven counties is $39.37 and for the Maryland group $27.39 per pupil per year, a difference of $11.98.

Reducing these costs still further to a per pupil per day basis we find a range from 19.7 cents per pupil per day in Chester County to 52.6 in Pike County where the density of population is extremely low.

It should be stated that in using transportation data in Pennsylvania it was not possible to accurately separate costs for high and elementary school pupils. In Maryland, however, this separate accounting is kept.

These per pupil per day costs are presented for Maryland in Table XLI and are found to be somewhat uniformly distributed, especially for the high school.

Because of lack of available data and because of the small number of colored pupils transported, data for these were eliminated in certain counties. In eleven counties in Maryland providing transportation for colored children there were but 174 colored high school pupils transported in 1929-1930 and 310 colored elementary pupils. The annual cost for the elementary group was $26.00 per pupil per year and for the high school $13.00, the low figure in the latter case probably being due to the contributions to the counties for the purpose from the Rosenwald Fund.[16]

The element of distance was not introduced into this investigation, chiefly because of the impossibility of obtaining any accurate data as to distances over which pupils were transported. Referring to this matter Evans[17] comments as follows; "Since comparisons on the basis of the mile and units derived from the cost per mile introduce a false variability and lead to confusion, such units should be avoided when comparisons are made."

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[16]1930 Report, Maryland State Department of Education, p. 213.
[17]Evans, F. O., op. cit., p. 188 of original thesis.

TABLE XLII

AVERAGE NUMBER OF DAYS IN TERM IN THE SELECTED COUNTIES, 1929-1930

Pennsylvania

Counties	Elementary	High
1. Adams	163	180
2. Bradford	168	180
3. Chester	176	183
4. Clearfield	163	180
5. Crawford	166	180
6. Greene	162	180
7. Pike	177	180
Average	167.9	180.4

Maryland

Counties	White		Colored	
	Elementary	High	Elementary	High
1. Carroll	183	186	178	178
2. Frederick	182	186	185	185
3. Baltimore	194	190	195	...
4. Allegany	194	194	194	194
5. Washington	185	185	184	185
6. Garrett	186	190	...	...
7. Calvert	183	183	163	162
Average	186.7	187.7	183.1	180.8

In the data presented in Tables XXXIX, XL and XLI, the causes can not be isolated for the differences in the cost of transportation in the counties studied.

As far as the writer has been able to note from the observation of transportation in a reasonable sampling of the counties and from personal inquiry, pupil transportation in Maryland is, in general, of as high a type as in Pennsylvania. Of course there is undoubtedly poor and good transportation

in both groups of counties and this will naturally produce variations of costs. The topography, however, is similar enough in both groups of counties to produce in toto similar effects. It seems logical that transportation in the larger unit ought to be more efficiently administered than in the small district.

If a township in Pennsylvania finds itself among several others feeding a high school outside the district and desires to transport its own children, it must do so entirely on its own initiative and each other township in the group must do likewise. The administration must be on the basis of the district (township) even though a pooling of resources would undoubtedly make for a less costly activity. To again quote Evans[18] on this subject he has found that, "In general the larger district can use larger conveyances and the consequent costs per pupil are lower. . . . From the standpoint of cost there seems to be no natural limit to the distances pupils may be transported. The limit is set by other considerations, chiefly the length of time that children may be expected to spend en route."

Several other findings of this excellent study are also significant. In his General Summary[19] he cites the following additional conclusions—

> (a) "The tables of normal cost emphasize the wastefulness of small projects. The cost increases approximately at the same rate as the square root of the pupil miles. This is an argument not only against the small project but against small administrative units and the separation of elementary schools and high schools."
>
> (b) "Only in extreme cases does the size of the district appear to add materially to the cost of transportation. There is no consistent relation between the cost per pupil and the size of the district except in districts with an area of more than 625 square miles."
>
> (c) "Mountain and unimproved roads add to the expense of providing transportation in approximately one-third of the high school districts. The average difference in cost due to this factor approximates 10 per cent with a maximum difference of 15 per cent."

While transportation service and transportation expenditures have increased very rapidly in both states, legal regulations

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[18]Evans, F. O., op. cit., p. 35.
[19]Ibid., pp. 37-38.

and limitations have operated in Pennsylvania to prohibit the attainment of the complete program which ought to be provided. These have been described in Chapter III and will not be repeated at this point. It is significant, however, to point out once more that in no case will reimbursement for transportation be made to a district for children beyond sixteen years of age. Obviously, unless a district desires to provide the service without aid from the commonwealth, a large part of the transportation of high school pupils will be impossible. In fact under the present administration of the Pennsylvania Law, proportionate deductions will be made from the appropriations paid to districts for senior high school children transported on the same bus which hauls children to a consolidated elementary or junior high school.

On the other hand, Maryland has taken a much more liberal attitude, both in the enactment and interpretation of the acts relative to the transportation of pupils. Under date of October 7, 1930, the State Superintendent of schools of Maryland in a letter to the county superintendents and county boards of education outlining state policies concerning small high schools, made the following statement:[20]

> "There is a growing belief among the school people of the state that high schools should be as free to the people of Maryland as are the elementary schools, and therefore, transportation of pupils to both high and elementary schools, when necessary, should be at public expense. The State Department of Education has recognized this principle by including 100% of the expenditures made by the county for transportation of pupils to both elementary and high schools in calculating the cost of the minimum program, because in the long run consolidation reduces the cost and increases the efficiency of a county school system."

Present policies concerning the transportation of high school pupils vary considerably in the Maryland counties used in this study.

Superintendent Charles L. Kopp of Allegany County in data obtained through correspondence[21] and verified through personal interview, wrote as follows;

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[20]1930 Report of the Maryland State Department of Education, p. 153.
[21]Personal letter under date of February 7, 1931.

"We furnish free transportation to all Junior High School pupils who reside within the transportation district, that is to say, wherever elementary school pupils are transported, so also are Junior High School pupils.

In the Senior High School, our general regulation is that in those rural districts where a school has been discontinued by consolidation, the pupils will continue to be transported as long as they continue in school; that is through the high school.

High School pupils are also transported when a high school is closed in one community and consolidated with another school in another community. We have one such case.

Our State Department of Education encourages high school pupil transportation, and a number of the counties of the State make no distinction between elementary and high school pupils in the matter of transportation. Our county is rapidly coming to do the same."

In 1929-1930 Allegany county transported 167 high school pupils and 1,188 pupils of elementary school classification.

In Baltimore a rather interesting attempt to partially equalize the cost of transportation is found. Although by far the largest number of high school pupils were transported in 1929-1930 in this county the parents of the pupils were required to pay a part of the cost directly. Every child who cared to ride might do so but whether the distance was ten blocks or ten miles he was charged the same amount, ten cents each way per day. Through this method the burden of cost is equalized by those who use the service but not by the general public in the form of taxation.

The county in 1929-1930 transported 821 high school and 1,959 elementary school pupils.

In Calvert County the present policy is to transport at public expense all high school children except those who live within two miles of the building. Pupils, however, may be compelled to walk two miles to the bus line. Until the end of the 1930-1931 school year there were three white high schools in the county, the number being reduced to but one after that time by a consolidation program. There is one colored high school at the present time.

It is also a policy in Calvert County that no elementary child may be compelled to walk more than one and one-half miles either to school or to a bus line.

For the 1929-1930 school term 159 high school and 249 elementary school pupils were transported at county expense. It is interesting to note also that in one case a motor boat was used for the transportation of pupils.

It will be noted from Table XLI that Carroll County expended no money for high school transportation during 1929-1930. Beginning with 1930-1931, however, a much more liberal plan was adopted whereby all children, both high and elementary, living more than one and one-half miles from the school are transported free of expense to parents or children.[22]

In 1929-1930 there were 1,090 elementary school pupils transported at county expense and no high school students.

In Frederick County the policy is to provide transportation for high school pupils only where high schools have been closed. This is in line with the adopted plan of the state to eliminate the smaller high schools by a plan of consolidation. In the situations above mentioned all transportation is paid by the county in the first and second years of high school, costs for the third and fourth years being paid by the parents themselves.

In 1929-1930 there were 161 pupils transported to high schools and 1,645 to elementary schools at county expense.

In Washington County, a very similar plan is used. High school transportation is provided only when small high schools are closed or when their establishment can be avoided. The present plan as explained by the county superintendent in a personal interview is as follows; where fifteen pupils can be gotten together rather than establish a small high school, to provide transportation at public expense to a large high school.

In 1929-1930 term 213 high school pupils and 601 elementary pupils were transported by the county.

For the first time, Garrett County in 1929-1930 adopted the policy of paying the entire cost of high school transportation.

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[22]Personal letter from Co. Supt. Unger under date of Feb. 7, 1931.

County Superintendent F. E. Rathbun in correspondence made the following explanation[23] of the plan in use in that county:

> "The county furnishes free transportation to all high school children within reach of the 35 school bus lines in the county, not counting one or two railroad facilities for which full fare is allowed. Therefore, parents pay no part of such cost and pupils are permitted to attend the nearest high school, which nearest high school is defined as the one that has running to it a school bus which is nearest to his or her home since this State takes the position that a school bus is a school house and therefore the nearest school, elementary or high, is the one that has running to it the nearest school bus."

In 1929-1930 the county transported free of cost to parents or children 349 high school pupils and 439 elementary.

There is thus evident under the Maryland plan a very clear tendency to make a good type of high school education available to all children through pupil transportation at public expense. The goal of complete free transportation has not yet been reached but the objective is clearly defined and progress towards its attainment well under way.

On the other hand the district system in Pennsylvania makes it difficult to administer high school transportation. Many townships or boroughs are small and have so few pupils of secondary school age that their transportation would be unduly expensive and except where joint schools exist, the combining of districts for the purpose is quite impractical.

As a particular case study a careful inquiry was made into the distances which the non-resident high school pupils in Chester County traveled each day in 1930 in order to reach high school, the means of conveyance which were used and the costs of the transportation to the parents or children.

A brief questionnaire, a copy of which is found in the Appendix, was administered to the non-resident pupils mentioned, 1218 in all, through the principals of the high schools which they attended. In case the pupils were not certain as to the accuracy of the information desired they were asked to take the forms home for parental assistance. The principals themselves checked the accuracy of the data in many cases. In

[23]Personal letter under date of Feb. 7, 1931.

others, checks were administered through personal interviews which the writer had with a number of students and through his familiarity with distances throughout the county. The basis for costs where personal automobiles were used for transportation was, first, the fact that the State of Pennsylvania was allowing to its county school officials ten cents per mile for the use of a personal car in line of duty at the time the study was begun and, secondly, by conclusions arrived at by Evans in the California study.[24] He found that in the case of touring car transportation, "The average load is 6.4 and the average cost per mile 11.4 cents." He further states that the cost per pupil per mile can, of course, be obtained by dividing the cost for the car by the number of passengers carried. This was the method used in the Chester County study and it is felt that in view of the work of Evans and the checks administered the data are highly reliable.

Table XLIII shows the distances which the 1218 non-resident pupils found it necessary to travel twice each day in order to reach the nearest or most convenient high school. The median distance was 4.22 miles or a round trip distance of 8.44 miles. The first and third quartile points were 2.84 miles and 6.96 miles respectively for the one-way distances. A very wide range of .25 to 20 miles was also found to exist.

Table XLIV presents the means of transportation used and indicates that the greatest number, as might be expected, used either private motor cars or busses. An even 200 pupils walked daily, many of them quite long distances. A number of cases were found where children started to walk and depended upon the uncertain possibility of getting rides, two pupils in particular reporting that they "hitch-hiked" thirteen miles each way every day. It was found too that the lack of transportation at convenient times, caused many children to arrive in town unduly early and get home at night entirely too late. Some reported that they rode with their parents when they went to work in the town where the school was located, arriving as early as six-thirty in the morning.

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[24]Evans, F. O., op. cit., p. 51 of original thesis.

TABLE XLIII

DISTANCES TRAVELED DAILY TO HIGH SCHOOL BY NON-RESIDENT PUPILS IN CHESTER COUNTY, PENNSYLVANIA, NOVEMBER 1930

Number of miles	Number of pupils	Number of miles	Number of pupils
.0– .49	13	10.5–10.99	5
.5– .99	13	11.0–11.49	88
1.0– 1.49	64	11.5–11.99	1
1.5– 1.99	62	12.0–12.49	39
2.0– 2.49	100	12.5–12.99	2
2.5– 2.99	76	13.0–13.49	6
3.0– 3.49	141	13.5–13.99	0
3.5– 3.99	62	14.0–14.49	10
4.0– 4.49	165	14.5–14.99	0
4.5– 4.99	19	15.0–15.49	6
5.0– 5.49	110	15.5–15.99	0
5.5– 5.99	9	16.0–16.49	1
6.0– 6.49	71	16.5–16.49	1
6.5– 6.99	7	17.0–17.49	4
7.0– 7.49	68	17.5–17.99	0
7.5– 7.99	2	18.0–18.49	2
8.0– 8.49	69	18.5–18.99	0
8.5– 8.99	9	19.0–19.49	0
9.0– 9.49	32	19.5–19.99	0
9.5– 9.99	0	20.0–20.49	1
10.0–10.49	40	Total	1218
Median	4.22 miles	Range	.25–20 miles
Q^1	2.84 miles	Q^3	6.96 miles

TABLE XLIV

MEANS OF TRANSPORTATION TO HIGH SCHOOL USED BY NON-RESIDENT PUPILS IN CHESTER COUNTY, PENNSYLVANIA, NOVEMBER 1930

Means of transportation	Number of pupils
Auto or bus	794
Train	128
Trolley	81
Walking	200
Bicycle	8
Wagon	7
Total	1218

TABLE XLV

EQUIVALENT WEEKLY EXPENSE FOR TRANSPORTATION TO NON-RESIDENT HIGH SCHOOL PUPILS IN CHESTER COUNTY, PENNSYLVANIA, NOVEMBER 1930

Cost per week in dollars and cents	Number of pupils
.0– .49	408
.50– .99	170
1.00– 1.49	315
1.50– 1.99	95
2.00– 2.49	75
2.50– 2.99	47
3.00– 3.49	31
3.50– 3.99	16
4.00– 4.49	19
4.50– 4.99	8
5.00– 5.49	15
5.50– 5.99	2
6.00– 6.49	7
6.50– 6.99	2
7.00– 7.49	2
7.50– 7.99	0
8.00– 8.49	2
8.50– 8.99	0
9.00– 9.49	2
9.50– 9.99	0
10.00–10.49	2
Total	1218
Median—$1.049	Range—0–$10.00
Q_1—$.373	Q_3—$1.608

Table XLV presents the costs of transportation of the 1218 non-resident high school pupils as determined from the train, trolley or bus fare paid or in the manner previously described in the case of privately furnished means.

The median weekly cost was found to be $1.049 with the quartile points at $.373 and $1.608 respectively and a range from 0 to $10.00.

It is undoubtedly true that many children in the county are being denied high school privileges because the parents can not afford the costs of transportation. This is, in reality,

a penalty which may be charged against living in a small community or in certain sections of the open country.

Then too, these costs take on added significance when they are considered in the sense of existing in addition to a tax rate which may of itself be burdensome. For example, let us assume that a parent owning a property assessed at $2500 has one child going to high school for which he must pay transportation costs at the median rate of $1.049 per week or $37.76 for a school year of thirty-six weeks. Let us also assume that his tax rate for school purposes is 15 mills. The $37.76, then, which he pays for transportation represents the equivalent of 15.1 additional mills of tax on the assessed valuation of his property. Two children, of course, will double this cost and is not an altogether uncommon thing for several children from one family to attend high school at the same time.

Inasmuch as the secondary school in America is accepted as a part of our publicly supported school system there seems to be very little of democratic principle in the unfair distribution of the costs of maintaining it as indicated in this study.

Free transportation to high school or rather transportation at public expense is an ideal to be striven for and it has been shown to be difficult of efficient attainment under the district system. Maryland, under the county unit plan has made much more rapid progress in this direction.

Summary

Data has been presented in this chapter to show, first, the per cent of expenditures in 1929-1930 devoted to the major items of current expense, debt service and capital outlay by the selected counties in Pennsylvania and Maryland. The average per cent of total expenditures for education in the Pennsylvania counties was 5.9 higher for current expense, 5.5 higher for debt service and 11.4 lower for capital outlay. While these percentages have been somewhat disturbed by the unusually large amount spent for new buildings in Baltimore County, further inquiry into the distribution of the expenditures for the minor items of current expenses, shows a larger percent-

age of money going for general control in the Pennsylvania counties than in Maryland, more than double, on the average, for 1929-1930. The percentage devoted to fixed charges is also shown in Table XXVIII to be 3.3 per cent higher in Pennsylvania than in Maryland. This latter difference bears no relation to the type of administrative unit in existence but the small percentage spent for general control in Maryland is directly chargeable to the type of county unit administration. This study also indicates that while there is no variation in the items on the average for auxiliary agencies, operation and maintenance, the smaller amounts for general control and fixed charges made it possible for Maryland to spend 8 per cent more of the current expense total for instructional purposes, the item most directly effecting all the children in the counties.

An analysis also has been presented of the costs of non-resident high school tuition in the selected counties in each state. In Maryland where all the high schools are operated by the entire county these charges take the form of payments to adjoining counties or states. Legal provision is made, however, for the joint operation and maintenance of high schools on or near the county lines. Consequently the costs for this service are very low in Maryland, in no case reaching the equivalent of even a large fraction of a mill of tax.

In Pennsylvania a very different situation is found. Payments are made from district to district, the cost frequently running to large figures.

Although no separate tax rate is levied for the purpose, the ratios of the equivalent tax rates necessary to raise the amounts required for non-resident high school tuition costs to the total tax rates vary tremendously in each county. Median percentages vary from 12.5 in Pike County to 34.16 per cent in Chester County. In each of the selected Pennsylvania counties except Greene and Pike there are districts where more than 70 per cent of the proceeds of the mill levy for school purposes goes to pay this item of expenditure. A county unit system of administration such as is found in Maryland would elimi-

nate the inequalities resulting from this phase of the cost of secondary education to the citizens of each county.

In discussing the transportation of children the attempt has been made as far as possible to eliminate or to discount those factors which are not susceptible of accurate and objective measurement. Data has been presented to show that the selected Pennsylvania counties transported at county expense during 1929-1930 a total of 9,050 different pupils, just a very few more than did the Maryland group with 9,021. The average of the seven Pennsylvania counties was 1,292.9 and for Maryland 1,288.7. For this service similar in both a quantitative and qualitative way Pennsylvania paid $356,351.35 and Maryland $247,058.00, an average for Pennsylvania of $50,907.33 per county and for Maryland $35,294.00. Similar differences are found when the costs are reduced to a pupil-per-year and a pupil-per-day basis. Wide variations in the pupil-per-day costs are also found within each of the Pennsylvania counties.

The Maryland plan of administration tends to equalize the cost for the county as a whole and makes possible a more economical type of transportation because of the size of the unit served.

Maryland is also stimulating the policy of furnishing transportation to high school at public expense for all children in need of the service. Both the district or township system in Pennsylvania and legal enactments make the attainment of a similar goal in that state exceedingly difficult. More liberal legislation would help the cause but administration by the small district is likely to result in a service that is both costly and inefficient.

A detailed study of high school transportation in Chester County, Pennsylvania reveals startling inequalities in distances traveled and in the costs of reaching the institutions which the pupils must attend.

CHAPTER VI

ADMINISTRATIVE AND SUPERVISORY CONTROL

The type of administrative unit for educational service is the determining factor in the organization for administration and supervision. It is largely the purpose of this chapter to present the evidence necessary for the evaluation of the availability of these services in the selected counties of Pennsylvania and Maryland. As an aid in interpreting the data, comparative cost figures will be presented for consideration in connection with the services indicated. It will also assist in analyzing the effectiveness of the activities made possible by the type of administrative unit if the extent is determined to which well-rounded instructional and supervisory offerings are provided in the fields of the so called special subjects of music and art. One's thinking will also be guided by the type of administrative and supervisory official which the organization for education demands or attracts and by the remuneration paid. The legal provisions and limitations as they pertain to administration and supervision have been discussed in considerable detail in Chapter III.

The purpose of this chapter will be to evaluate as far as possible the availability and costs of administration and supervision in the selected counties in each state and to analyze the qualifications and the salaries of the county supervisory officials.

Development of the County Superintendency

In discussing the evolution of the function of the county school officer, Cubberly[1] cites the following needs as calling in the early days for some advising and directing authority:

1. The school—land sections needed to be looked after by some one representing the state.

[1]Cubberly, E. P.: Public School Administration, p. 45.

2. Local school officials needed supervision to see that schools were maintained according to law and that school moneys were properly spent.
3. An agent was needed to collect statistical information for the state and to act as a means of communication between the state and local school districts.
4. An agent of the state was needed to stimulate local interest in the schools and to help and inspire teachers.

Sometimes this office was an entirely new administrative set-up. In other cases, it had evolved from some office already existing within the county. The title given to the officer in charge of this newly created office varied widely and in fact still does throughout the states. In Maryland, at the present time, he is known officially as the county Superintendent of Schools and in Pennsylvania merely as the County Superintendent. Cubberly[2] further states, "The office of the County Superintendent of Schools began about 1835, and by about 1870 was common in most of the older states."

In the early days of the county superintendency, that official's duties were rather simple. They were largely of a clerical nature and little professional training was required. As a result, the usual method of selection was by popular vote for a short term, a method which persists today in the majority of the states. "Officially", says Cubberly,[3] "he represented the state; actually he represented the people."

The same author indicates the changing duties with which this official began to be entrusted. Some of these came as delegations from the state; others were gathered up from below. Through this process of evolution, the county superintendency has come to be one of the most important positions in the whole educational system. From a layman to a professionally trained leader with qualifications, which are, in general, being continually raised, he has developed into one holding a position from which real professional leadership is demanded.

As has been pointed out in Chapter III, the administrative, and to a certain extent, the supervisory functions perform-

[2]Ibid., p. 46.
[3]Ibid., p. 47.

ed in the county superintendency are dependent upon the type of administrative unit and the legal enactments pertaining thereto. In most of the larger counties, and especially in Pennsylvania, his duties, must, of necessity, be largely of an administrative nature. Time is too short and distances are too great to permit of much close contact with the teaching force. On the other hand, he should be largely concerned with the direction of supervision.

In this regard, the supervisory services which the county superintendent can personally render with a small number of teachers can not be compared to those which a superintendent of a small city or district can render with a teaching force of the same size. The factors of distance and topography are most important delimiting influences.

No study of significance has been made of the actual differentiation of duties performed by county superintendents in various situations, especially as they pertain to either Pennsylvania or Maryland. This is probably due largely to the lack of any common agreement on a clear distinction in connection with rural education. Nelson[4], in writing of this problem, states that,

> "The various studies have not dealt with the same classification of duties. In general, a classification more naturally used for urban studies has been applied. By urban classification is meant dividing duties into the major divisions: administration, supervision, clerical, teaching and professional improvement. Difficulty arises from the fact that the work of a rural administrator does not naturally divide into such units. There is administration in supervision and also in clerical routine. Until rural investigators adopt a uniform and directly useful terminology, their investigations will be handicapped. The rural department of the National Education Association might well appoint a committee to suggest a standard classification of major administrative duties."

Until 1911, the county superintendents in Pennsylvania were given no professional assistance whatever in the carrying on of their work. The granting to them at that time of the authority to appoint assistant superintendents in accordance

[4]Nelson, M. G., "Analyzing the Work of the Rural School Administrator", p. 211, 30th Year Book, National Society for the Study of Education, 1931.

with the number of teachers employed was a highly desirable step. In the natural evolution of the functions performed, however, it has come to mean that the work of field supervision has been largely delegated to the assistant superintendents. The division of duties among these officers has been made on a number of different bases. A common allocation is a territorial one. Another is a division based upon the types of teachers to be supervised, i. e., rural, primary, high school, etc. The determining factors appear to be:

(a) Size and topography of the county.

(b) Educational philosophy of the county superintendent.

(c) Qualifications of the assistant superintendents.

In Maryland, because of the enlarged responsibilities which devolve upon the county superintendent his supervisory functions, especially in the larger counties, must be largely of a "directing" nature. He is provided with apparently adequate professional assistance in the form of assistant superintendents in a few counties and supervising or helping teachers in all counties.

Here the division of supervisory services is usually made upon the basis of the work of the teachers to be supervised, although this is frequently combined with the zone plan.

Analysis of Present Responsibilities

It is proposed now to analyze the extent to which supervision, both general and special, is available to the members of the teaching staff and to the children which are legally under the supervision of the county superintendent.

In Adams County, Pennsylvania, the county superintendent had under his immediate direction in 1929-1930, 244 teachers. The work of field supervision, however, as far as the number of teachers was concerned was approximately evenly divided between himself and the assistant superintendent with approximately 122 teachers each. There were also three super-

vising principals who had direct charge of sixty of the above mentioned teachers. The number of teachers under each supervising principal ranged from ten to thirty seven.

There were three music supervisors in the county covering the work of seventy four teachers or 1,943 pupils. The number of classroom teachers under each ranged from thirteen to thirty eight and the number of pupils from 302 to 1,121, measured in terms of the average number belonging.

In Carroll County, Maryland, for the same year (1929-1930), there were exactly the same number of teachers. The supervisory force, in addition to the superintendent, consisted of three supervising and helping teachers with responsibilies as follows:

> One supervisor of graded schools of four or more teachers—76 teachers.
>
> Two supervisors for schools of one to three teachers—41 teachers each.
>
> One supervisor of colored schools—13 teachers.

The county superintendent himself carried on considerable supervision of the high school teachers, seventy three in number, with the assistance of the divisional supervisor from the State Department.

There was also in the county one special supervisor, giving part of his time to the direction of music from the seventh grade up through the high schools, and the remainder of his time to teaching the violin and organizing and directing the orchestras in all of the high schools of the county where 1,161 pupils and seventy two teachers were concerned and in certain of the larger elementary schools. The remainder of the music instruction was departmentalized in the high schools of the county while in the grades it was taught by the classroom teachers and supervised by the regular supervisors.

In Bradford County, Pennsylvania, the general supervisory force consists of the county superintendent and two assistants, these latter officials having had charge of 190 and 186 teachers respectively. Of these, however, 122 were under the close

direction of four supervising principals, who supervised numbers of teachers ranging from twenty two to thirty eight each. There was also attached to the county office a supervisor of agriculture who served both as an itinerant teacher and as a director of the work in that subject in the county schools. His employment is based upon the Smith-Hughes legislation.

There were six full time supervisors of music, under the county office, in charge of 158 teachers or 3,253 pupils. The number of teachers under each ranged from ten to thirty eight and the number of pupils from 287 to 1,685.

There were also three supervisors of art under the supervision of the county superintendent working with 93 teachers or 2,480 pupils. The range of teachers under each was from twenty two to thirty eight and pupils from 599 to 967.

In Frederick County, Maryland, in addition to the county superintendent, there was employed an assistant superintendent with a general division of official responsibilities. The general supervisory force consisted of four supervisors with duties allocated as follows:

> One supervisor of primary teachers and one supervisor of intermediate grade teachers with responsibilities for approximately sixty teachers each.
>
> One supervisor of rural schools (one and two rooms) directing seventy-six teachers.
>
> One supervisor of colored teachers with thirty-four teachers.

Music and art are, in general, taught by the classroom teachers with departmentalization in a number of schools. There was one full time music teacher in the city of Frederick for the forty five teachers employed there. There were, however, no supervisors of music or art attached to the county office.

The teaching and supervising force under county supervision in Chester County, in 1929-1930, numbered 600. The county supervisory force consisted of the county superintendent, two assistant superintendents, a supervisor of home economics and a supervisor of agriculture.

The work of field supervision was divided strictly upon a territorial basis, with one assistant superintendent having charge of 324 teachers and the other of 276. The supervisors of home economics and agriculture were employed under the Smith-Hughes act and are largely itinerant teachers, with joint responsibilities with the superintendent and assistants, for directing the work of the teachers in those subjects. Of the above 600 teachers, 275 were in direct charge of twelve supervising principals, with a range of eleven to thirty six under each.

Eleven full time music supervisors were employed for 288 teachers or 9,530 pupils, the range of teachers to each supervisor being from twelve to thirty seven and pupils from 335 to 1,126.

There were also six full time art supervisors for 188 teachers or 5,654 pupils. The range under each was from twenty nine to sixty five teachers or from 803 to 1,657 pupils.

In Baltimore County, Maryland, there were 528 teachers employed under the county superintendent and his assistant, which latter official served as chief attendance officer and gave much of his time to that work.

Following a careful survey of the county, certain changes were made in the supervisory organization. There are four supervisors of elementary schools with work divided as follows:

One supervisor for the grammar grades of suburban schools—113 teachers.

One supervisor for the primary grades of suburban schools—160 teachers.

One zone supervisor for the one, two, three and four teacher schools included therein—55 teachers.

One supervisor for rural one and two teacher schools—49 teachers.

One high school supervisor—98 teachers.

The six high school principals give the major part of their time to supervision and administration in their respective buildings, of course, under the direction of the state zone supervisor for high schools.

Since a reorganization there are also six elementary school principals doing some supervisory work. Two do no teaching while the others teach but one or two subjects.[5]

Music and art are departmentalized in all of the high schools while in the elementary schools the classroom teachers, handle these subjects themselves. There are no county supervisors of music and art.

The policy of the State Department in this regard is reflected in a quotation from a recent Bulletin:[6]

> "Some counties departmentalize the work in music in the large schools. In the smaller schools it is taught by the teacher of the regular elementary school subjects. In Maryland, music is regarded as one of the regular school subjects, and all normal school graduates complete courses in music before they receive their teaching certificates."

Much the same attitude seems to exist toward the companionate subject, art.

In Clearfield County, Pennsylvania, the teaching and supervising officials, under county supervision, numbered 513. Two assistant county superintendents were employed with responsibilities for 260 and 253 teachers, respectively, the division being largely upon a territorial basis. There were six supervising principals in direct charge of 152 of the above teachers, the number under each ranging from eighteen to thirty.

There were no full time music or art supervisors except in third class districts employing district superintendents.

In Allegany County, Maryland, the county supervisory force, in addition to the county superintendent, consisted of one assistant superintendent, three elementary school supervisors and one supervisor of high schools.

The assistant superintendent was in charge of elementary supervision, but with direct responsibilities for the teachers of grades four, five and six in the city of Cumberland and in certain junior high schools, a total of 130 teachers. There was

[5]Personal letter from assistant superintendent under date of July 2, 1931;
[6]"Administration and Supervision in Maryland Counties in 1927-1928", Maryland School Bulletin, Vol. X, No. 10, p. 11, April, 1929.

also one supervisor of primary grades in buildings with six or more rooms, eighty six teachers in all. Another supervisor had charge of teachers in grades four, five and six in graded schools outside of Cumberland and of primary teachers in schools with less than six rooms, consisting in all of seventy teachers. A fourth elementary school supervisor had charge of teachers in buildings of one or two rooms with a total of fifty seven teachers. The high school supervisor directed the activities of 130 teachers.

There were in the county seven special music teachers under the assistant superintendent covering all graded schools. In the high schools music was departmentalized while in the one and two room schools the teachers were expected to handle this subject.

Art was also departmentalized in the high schools, but was taught by the classroom teachers in the elementary schools.

In Crawford County, Pennsylvania, there were 355 teachers and supervising officials under county supervision in 1929-1930. The county force, itself, consisted of the superintendent and two assistants, the latter having direct responsibilities for 120 teachers each. The superintendent, himself, assumed supervisory charge of the remaining 115 elementary teachers and also gave special attention to twenty three high school teachers included in the above total assignments. There were also employed three supervising principals directing the work of forty one teachers, those in charge of each supervising principal ranging from twelve to sixteen.

A supervisor of home economics and a supervisor of agriculture were also attached to the county office, serving as itinerant teachers and directing the work of the teachers in these subjects.

Three supervisors or directors of music were employed under the direction of the county superintendent with the number of teachers under each ranging from seventeen to thirty five. The number of pupils receiving the benefit of this work was 1,703, exclusive of the two third class districts of Meadville

and Titusville. Of the music teachers under the county office the range of pupils under each teacher was from 388 to 718.

In Washington County, Maryland, the county supervisory force consisted of the county superintendent and four general supervisors as follows:

> One primary supervisor responsible for the supervision of primary teachers in all large centers, a total of eighty three teachers.
>
> One grammar grade supervisor on the same basis with 114 teachers.
>
> Two rural supervisors with sixty and sixty two teachers each.

In Hagerstown there were also three building principals employed who gave full time to supervision and administration.

There was one music and art supervisor employed for the entire county. Both of these subjects, however, are frequently departmentalized.

In Greene County, Pennsylvania, the total teachers and supervisory officials under the county office totalled 396. Direct responsibilities for these were divided on a territorial basis between the two assistant superintendents with 167 and 229 teachers respectively. Six supervising principals had direct charge of 202 of the above teachers, ranging from thirteen to sixty nine under each.

Two music supervisors were employed for twenty five and forty four teachers respectively or 659 and 1,204 pupils measured in terms of the average number belonging.

Garrett County, Maryland, in addition to the county superintendent, employed four general elementary supervisors based largely on a zone division with some overlapping as to the types of teachers supervised. These worked partly on a zone basis and partly upon a functional basis, having charge of thirty five, thirty six, twenty nine and thirty nine teachers each. These general supervisors also look after the work in music and art.

In Pike County, Pennsylvania, there were fifty six teachers directly under the county superintendent, no assistant superintendents being provided in this the smallest of the

seven counties selected in the state. Two supervising principals, however, gave immediate direction to twenty five of the above, divided upon a basis of ten and fifteen teachers under each.

There were no full time music and art supervisors employed in the county, the subjects being partially departmentalized in the larger schools.

In Calvert County, Maryland, there were sixty three teachers employed during 1929-1930. The county superintendent, in addition to directing all of the supervisory work, assumed immediate charge of the supervision of the eight high school teachers, in conjunction, of course, with the divisional supervisor from the State Department. There was also one supervisor of white elementary teachers, (a total of twenty nine), and a colored supervisor for the twenty six colored elementary teachers.

The supervisor for white teachers has had special training in music and art and directs the classroom teachers in the teaching of those subjects. Capable teachers are encouraged to take music and art at summer schools and are used as leaders in these fields.

To aid in understanding the general supervisory situation in the counties studied, a summary of the delegation of responsibilities is presented in Table XLVI.

Educational Qualifications of the Administrators and Supervisors

An investigation of the training of the county administrative and supervisory officers will give some indication of the type of professional service demanded from the position and available to the teachers and children of the counties concerned. The analysis of this situation as it pertains to county superintendents is presented in Table XLVII. It is evident that as far as the counties in this study are concerned, the Maryland superintendents have a higher type of professional training than is possessed by their Pennsylvania colleagues. Five

TABLE XLVI

NUMBER OF TEACHERS UNDER THE DIRECT SUPERVISION OF THE COUNTY SUPERVISORY OFFICERS IN THE SELECTED COUNTIES OF PENNSYLVANIA AND MARYLAND FOR THE YEAR 1929-1930

Pennsylvania

Supervising Officer	Adams	Bradford	Chester	Clearfield	Crawford	Greene	Pike
County Superintendent	122	–*	–*	–*	115	–*	56
Assistant County Superintendent	122	190	324	260	120	167	—
Assistant County Superintendent	—	186	276	253	120	229	—

Maryland

Supervising Officer	Carroll	Frederick	Baltimore	Allegany	Washington	Garrett[1]	Calvert
County Superintendent	73[2]	–*	–*	–*	–*	–*	8[2]
Assistant County Superintendent	—	–*	–*	130	—	—	—
Elementary School Supervisor	76	60	113	86	83	35	29
Elementary School Supervisor	41	60	160	70	114	36	—
Elementary School Supervisor	41	76	55	57	60	29	—
Elementary School Supervisor	—	—	49	—	62	39	—
High School Supervisor	—	—	98	130	—	—	—
Supervisor of Colored Schools	13	34	—	—	—	—	26

*The official indicated does not have direct supervisory responsibilities for a specific number of teachers.

[1]Data for 1930-1931.

[2]Joint responsibilities with state high school supervisors for high school teachers.

out of the Maryland group of seven superintendents have the Master's degree or better while none of the Pennsylvania group have similar qualifications.

In Table XLVIII is found a similar analysis of the training of the assistant superintendents in the selected counties in Pennsylvania and in Maryland and of the supervising and helping teachers in the latter state. The functions performed by these officers are quite comparable except that the supervising and helping teachers have very little to do that savors of an administrative nature.[7] Of the eleven assistant super-

TABLE XLVII

EDUCATIONAL QUALIFICATIONS OF COUNTY SUPERINTENDENTS IN THE SELECTED COUNTIES IN PENNSYLVANIA AND MARYLAND FOR THE YEAR 1929-1930

Educational qualifications	Number of county superintendents with training as indicated	
	Pennsylvania	Maryland
Private secondary schools only	1	0
High school graduate plus extension work	0	0
Normal school graduate only	0	0
Normal school graduate plus summer school or extension work	0	0
Partial college course only	0	0
Partial college course plus summer school or extension work	4	0
A. B. or B. S. degree only	0	1
A. B. or B. S. degree plus summer school or extension work	2	1
A. M. or M. S. degree only	0	3
A. M. or M. S. plus summer school or extension	0	2
Total	7	7

[7]Annual Report, Maryland State Department of Education, Table 71, pp. 102-104, 1930.

TABLE XLVIII

EDUCATIONAL QUALIFICATIONS OF ASSISTANT COUNTY SUPERINTENDENTS AND OF SUPERVISING AND HELPING TEACHERS IN THE SELECTED COUNTIES IN PENNSYLVANIA AND MARYLAND FOR THE YEAR 1929-1930

Educational Qualifications	Pennsylvania	Maryland	
	Number of assistant county superintendents with training indicated	Number of assistant county superintendents with training indicated	Number of supervising and helping teachers with training indicated
High school graduate plus extension or summer sessions	0	1	3
Normal school graduate only	1	0	0
Normal school graduate plus extension or summer sessions	6	0	4
Partial college course only	0	0	3
Partial college course plus extension or summer sessions	1	0	0
A. B. or B. S. degree only	0	0	6
A. B. or B. S. plus additional graduate work, extension or summer sessions	2	1	7
A. M. or M. S. degree only	0	1	4
A. M. or M. S. plus additional graduate work, extension or summer session	1	0	2
Total	11	3	29

intendents in the Pennsylvania counties chosen there is a rather wide type of training represented, the standard appearing most frequently being that of normal school graduation plus extension or summer courses. The assistant superintendent in Maryland, however, is not a commonly found official, but three serving in the seven counties of the group. It is not surprising, therefore, to find widely different types of training represented.

On the other hand, an examination of the training of the real field supervisor in Maryland reveals a type that is noticeably higher than that found among the officials in Pennsylvania who must perform similar functions, the assistant superintendents. Of the twenty nine supervising and helping teachers in the Maryland counties, nineteen had a Bachelor's degree or better while six of these had received the Master's degree or training beyond. It is evident, therefore, that as far as professional training is considered, the Maryland supervisors bring to their work stronger possibilities for more effective service.

In discussing the matter of qualifications as they pertain to the county superintendents in all of the states, Mrs. Katherine M. Cook makes the following observations:[8]

> "Maryland appears to have the highest state-wide statutory requirement, namely, a certificate in administration and supervision based upon graduation from a standard higher institution, one year of graduate work, and two years' teaching experience."

In Pennsylvania, qualifications for the office of both county superintendent and assistant were established as follows in 1931:[9]

> (a) He must hold a diploma from a college or other institution approved by the State Council of Education.
>
> (b) He must have had at least six years of successful teaching experience, not less than three of which shall have been in a supervisory or administrative capacity.

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[8]Cook, Katherine M., "Salaries and Certain Legal Provisions Relating to the County Superintendency in the United States", Rural School Leaflet No. 45, United States Office of Education, March, 1929.

[9]School Laws of Pennsylvania, Section 1103, as amended, 1931.

(c) He must have completed in a college or university a graduate course in education approved by the State Council of Education.

(d) It is provided, however, that serving in either of the offices at the time the act became effective should be considered sufficient qualifications for the above offices.

The qualifications for supervisory positions in the Maryland counties have been set up as follows:[10]

"The following statement of conditions under which candidates for supervisory positions may secure certificates from the State Superintendent, provided a county superintendent is considering the desirability of securing their services, was prepared in conference with the supervising teachers already employed in the counties:

Legal Requirement

1. Graduation from a two-year standard normal school, or the equivalent.
2. In addition to "1", two full years of work at a standard college, or the equivalent, not less than one-half in academic branches related to the elementary schools and the other half in advanced elementary school methods and supervision.
3. In lieu of "1" and "2" may be substituted graduation from a standard college, either including or with the addition of one full year of work in Education, including elementary school methods and supervision.
4. Four years of successful teaching experience in elementary schools. (Supervisors from State Department of Education will pass judgment on the candidate's ability to teach as a pre-requisite to any consideration for certification in supervision.)

Professional Equipment

1. Knowledge of subject matter and knowledge of technique of teaching to the extent of being able to
   a. Sense a teacher's problem.
   b. Suggest helpful procedures and devices.
   c. Analyze and reconstruct a lesson.

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[10]Maryland School Bulletin, Vol. X, No. 10, pp. 14-15, April, 1929.

2. Ability to formulate and carry out sane supervisory policies based on needs of the group and of individual teachers. This means
   a. To decide upon specific objectives.
   b. To plan and conduct teachers' meetings which will further the objectives.
3. Necessary aptitudes, which may be expressed as
   a. Sincerity of purpose.
   b. Ability to work harmoniously with people.
   c. Ability to stimulate teachers to greater achievement.
   d. Ability to take into consideration the teacher's point of view.
   e. An optimistic temperament and a sane outlook on life.
   f. A real interest in the work."

Salaries of County Administrative and Supervisory Officials

An analysis of the salaries paid to the county superintendents for the year 1929-1930 as shown in Table XLIX exhibits a much wider range in the Maryland group than in Pennsylvania, the former being, on the whole, slightly higher paid. The average salary of the Pennsylvania county superintendents in this study for 1929-1930 was $4,271.43 and for the Maryland group $5,151.43.

In the case of the salaries paid to the assistant superintendents in both states we find in Table L one such person in the Maryland counties with a salary in the $4,500—$4,999 group. Otherwise all are in the $3,000—$3,499 or $3,500—$3,999 group. The most outstanding feature of this Table, however, is the rather low salaries paid to the supervising and helping teachers in Maryland as compared to the Pennsylvania group of assistant superintendents upon whose shoulders must fall the burden of rural supervisory work. This fact is especially significant in view of the higher qualifications manifested by the Maryland supervisors. How much of this difference in salaries paid is due to the fact that all of the Maryland supervising and helping teachers are women while nearly all of the assistant superintendents are men, it is impossible to say. A

TABLE XLIX

NUMBER OF COUNTY SUPERINTENDENTS IN THE SELECTED COUNTIES WITH ANNUAL SALARIES AS INDICATED FOR THE YEAR 1929-1930

Salary groups	Number of county superintendents in each group	
	Pennsylvania	Maryland
$3,000—$3,499	0	1
3,500— 3,999	1	0
4,000— 4,499	3	1
4,500— 4,999	2	1
5,000— 5,499	1	2
5,500— 5,999	0	0
6,000— 6,499	0	1
6,500— 6,999	0	0
7,000— 7,499	0	0
7,500— 7,999	0	0
8,000— 8,499	0	1
Total	7	7

certain, and possibly a very large amount of it can be charged to this factor.

In speaking of the salaries paid to rural school officials, Mrs. Cook writes as follows:[11]

> "Success in securing professional administration and supervision of schools in rural communities is conditioned in large part by the manner in which administrative officers are selected, their terms, salaries, qualifications, etc., as compared with similar factors relating to corresponding officers in urban communities and to other educational positions to which such superintendents are or may become eligible."

In this respect the situation in Maryland is of the highest type. Outside of the city of Baltimore there are no city superintendencies to attract the rural administrators. Promotion comes to the efficient county superintendent or supervisor through local salary advances or possibly through a position of

[11]Cook, Katherine M., op. cit., p. 19.

TABLE L

NUMBER OF ASSISTANT SUPERINTENDENTS, SUPERVISING AND HELPING TEACHERS IN THE SELECTED COUNTIES WITH ANNUAL SALARIES AS INDICATED FOR THE YEAR 1929-1930

	$1000 to $1499	$1500 to $1999	$2000 to $2499	$2500 to $2999	$3000 to $3499	$3500 to $3999	$4000 to $4499	$4500 to $4999	$5000 to $5499	$5500 to $5999
Assistant County Superintendents in Pennsylvania	0	0	0	0	4	7	0	0	0	0
Assistant County Superintendents in Maryland	0	0	0	0	1	1	0	1	0	0
Supervising and Helping Teachers in Maryland	1	2	15	8	3	1	0	0	0	0

enlarged responsibilities in a larger county. The county superintendency is a position of dignity and responsibility.

Cochran[12] in a recent study shows that in Pennsylvania the district superintendents receive a median salary of $4,970.56 which is $1,608.52 higher than the median salary for county superintendents. This condition exists not only in Pennsylvania but in practically all states where the city forms a separate school district.[13] Mrs. Cook further comments as follows:[14]

> "The dearth of high-salaried places in county superintendencies means that successful administrative officers, like successful teachers, gravitate to the cities after serving a probationary training period in rural positions."

The Costs of County Administration and Supervision

The costs of administration and supervision based upon the salaries and expenses of the general administrative and supervisory officials attached to the county office are presented in Tables LI and LII. These are calculated on a per pupil and per teacher basis for each of the seven selected counties in both states from data covering the school year 1929-1930. For Pennsylvania, it should be noted, independent districts with their own district superintendents and not under the supervision of the county office are excluded.

From these Tables it may be observed that the range of cost per pupil for county supervision and the attendant administration in the Pennsylvania group varied in 1929-1930 from seventy eight cents ($.78) per pupil in Chester County to four dollars and five cents ($4.05) in Pike County, while the cost per teacher ranged from twenty two dollars and fifty cents ($22.50) to eighty dollars and thirty six cents ($80.36) in the same counties respectively.

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[12]Cochran, Harry A.: The Status of the Superintendent of Schools in Pennsylvania, p. 50, Ed.D. Thesis, Temple University, 1931.
[13]Cook, Katherine M., op. cit., p. 22.
[14]Ibid.

TABLE LI

COSTS OF ADMINISTRATION AND SUPERVISION PER PUPIL AND PER TEACHER IN THE SELECTED PENNSYLVANIA COUNTIES FOR THE YEAR 1929-1930 BASED UPON THE SALARIES AND EXPENSES OF THE COUNTY AND ASSISTANT COUNTY SUPERINTENDENTS

Counties	Salaries and expenses of administration and supervision	Number of pupils belonging	Cost per pupil per year	Number of teachers	Cost per teacher
1. Adams....	$7,500.00	6,683	$1.19	244	$30.70
2. Bradford...	13,000.00	8,613	1.51	376	34.57
3. Chester....	13,500.00	17,335	.78	600	22.50
4. Clearfield..	12,100.00	14,492	.83	513	23.59
5. Crawford..	12,750.00	7,770	1.64	355	35.92
6. Greene....	12,500.00	9,417	1.33	396	31.57
7. Pike.....	4,500.00	1,100	4.05	56	80.36
Average...	75,850.00	65,420	1.16	2,540	29.86

TABLE LII

COSTS OF ADMINISTRATION AND SUPERVISION PER PUPIL AND PER TEACHER IN THE SELECTED MARYLAND COUNTIES FOR THE YEAR 1929-1930 BASED UPON THE SALARIES OF THE COUNTY AND ASSISTANT COUNTY SUPERINTENDENTS AND THE SUPERVISING AND HELPING TEACHERS

Counties	Salaries and expenses of administration and supervision	Number of pupils belonging	Costs per pupil per year	Number of teachers	Costs per teacher year
1. Carroll.....	$15,976.13	6,356	$2.51	244	$65.48
2. Frederick...	22,162.25	10,303	2.15	326	67.98
3. Baltimore...	39,181.59	20,130	1.94	528	74.20
4. Allegany....	24,766.21	14,146	1.75	451	54.91
5. Washington.	14,965.04	12,904	1.16	401	37.32
6. Garrett.....	16,204.18	4,468	3.62	188	86.18
7. Calvert.....	7,344.50	2,040	3.60	63	116.58
Average....	140,599.90	70,347	1.99	2,201	63.88

For county administration in the Maryland group, the cost per pupil in 1929-1930 ranged from one dollar and sixteen cents ($1.16) in Washington County to three dollars and sixty two cents ($3.62) in Garrett. On a per teacher basis the range was thirty seven dollars and thirty two cents ($37.32) in Washington County to one hundred sixteen dollars and fifty eight cents ($116.58) in Calvert County, greater in the latter case than in Pennsylvania. There would undoubtedly have been less variation in the costs for these services had it not been for the fact that Allegany and Washington Counties employed but two supervising or helping teachers each, whereas they were entitled to six each, and Garrett County on account of its mountainous regions, large area and large number of one teacher schools, employed four such officials instead of the required three.[15]

It will be noted from the legal provisions pertaining to administration and supervision as quoted in Chapter III of this study that a greater number of professional assistants for supervision are required by law in Maryland than in Pennsylvania. This, of course, while tending to make more supervision available also tends to make unit costs somewhat higher.

Great variation is noted in the per pupil and per teacher costs in Pennsylvania. Some of this is probably due to the large number of teachers who must be employed before additional professional assistance is provided for by law, with the payment of the minimum salaries by the state. For example, Chester County was entitled to two assistant superintendents with 351 or more teachers but the state will not guarantee the minimum salary of a third until there are more than 600 employed. Thus it happens that the county superintendent and two assistant superintendents must spread their activities over exactly 600 teachers when the same personnel would probably be provided for slightly more than 350. This same principle applies to each county. Undoubtedly, the interval is too large. On the other hand, the costs per teacher in Pennsylvania do not vary so consistently as the per pupil costs nor so widely

[15]1930 Report, Maryland State Department of Education, p. 100.

as the per teacher costs in Maryland. Here, of course, the number of pupils per teacher is a most disturbing factor. This is quite evident in the case of Garrett and Calvert Counties in Maryland and of Pike County in Pennsylvania which have rather small numbers of pupils per teacher. Then, too, many of the costs of administration that are common in both large and small counties tend to make unit costs in the latter unduly high in comparison.

Comparisons of the average costs show that in 1929-1930, the Maryland counties spent one dollar and ninety nine cents ($1.99) per pupil and sixty three dollars and eighty eight cents ($63.88) per teacher for administration and supervision while the Pennsylvania group spent on the average one dollar and sixteen cents ($1.16) per pupil and twenty nine dollars and eighty six cents ($29.86) per teacher. In view of the other features of the plans in use in each state this apparently is additional evidence of the availability of the service and in view, further, of the superior qualifications of the Maryland supervisors, probably a partial indication, at least, of the efficiency of the supervision provided.

Summary

This chapter has pointed out the variety of needs existing in the early days as indicating the necessity for some county school official. The office of county superintendent began to be established about 1835, in some cases being an evolution from some office already existing within the county and in others a newly created one. Through rapidly increasing and complex duties which have developed from very simple ones, the position has come to be one with large opportunities and possibilities for leadership. It has been shown also that the county superintendent has both administrative and supervisory duties, the balance between the two depending to a large extent upon the size of the county.

In 1911, the Pennsylvania superintendents were given professional aid in the form of assistant superintendents who have taken over much of the work of field supervision. Assist-

ant superintendents are provided in a few of the Maryland counties but the actual work of supervision is almost entirely in the hands of the supervising and helping teachers.

An analysis has been presented of the availability of supervision of a general nature and in the special subjects of music and art. While supervising principals are provided locally in Pennsylvania for administrative and supervisory purposes, nevertheless the county office is charged with responsibilities for directing the work in these districts as well. Principals who devote more than half of their time to supervision are found only in the largest schools in Maryland.

The county superintendent in each state very infrequently assumes responsibility for the supervision of a definite number of teachers. His function in this regard has become largely one of direction. In 1929-1930, the assignments to the Pennsylvania assistant superintendents varied from 120 teachers to 324, while in Maryland the supervising and helping teachers had charge of much smaller numbers, the lowest being twenty nine and the highest 160 for the white elementary schools. For colored schools, the lowest number of teachers assigned to one supervisor was thirteen and the highest thirty four. Although a few counties have high school supervisors, this matter is largely in the hands of the State Department of Education.

But two Maryland counties, Carroll and Washington, employ a special county supervisor of music while there are no such persons attached to the county offices in Pennsylvania. In general, music and art are departmentalized in the larger schools in the Maryland counties while in the smaller schools they are taught by the regular classroom teachers. This, probably, results from a difference in philosophy concerning the subjects between the two states, because the attitude seems to be established in Pennsylvania that these can best be taught by special teachers, while in Maryland a strong position is taken that the elementary classroom teachers are quite well prepared to do the work. Several Maryland counties employ itinerant teachers for these special subjects in the county high schools. In several of the counties of the group, notably Calvert,

Garrett and Allegany, the supervision of music is in the hands of the regular general supervisors.

Statistical data have been presented showing that the county superintendents in the Maryland counties are a more highly trained group professionally than are their Pennsylvania colleagues. The same situation is evident to a marked degree in the case of the assistant superintendents and the supervising and helping teachers in their respective states.

Inasmuch as "In 1929-1930 there was an average of one elementary supervisor for every 58 teachers in the white elementary schools"[16] in Maryland, a figure much lower than is practically possible of attainment under present legal statutes in Pennsylvania, efficient county supervision is apparently more available under the Maryland plan.

Tables have been exhibited showing the salaries paid to county supervisory officials in each state and the unit costs of supervision based upon these salaries and expenses. For the county superintendents, a much wider range of salaries paid is found in the Maryland counties than in the Pennsylvania group. The average salary paid to county superintendents in 1929-1930 in the first named case was $5,151.43 and in the latter $4,271.43. In the case of the other supervisors, however, the Maryland officials, while having higher qualifications, are much more poorly paid.

When unit costs are considered, Maryland is, as might be expected from the above, spending more upon county supervision than are the counties in her sister state. The selected counties in Pennsylvania in 1929-1930 expended $1.16 per pupil and in Maryland $1.99 for county supervision and administration, as previously explained, while on a per teacher basis the figures were $29.86 and $63.88 respectively. Greater variation is shown in the per pupil costs in Pennsylvania than in Maryland and less in the costs per teacher. In the latter case the number of pupils per teacher is so significant as to make comparisons of little value.

[16]Ibid., p. 99.

CHAPTER VII

TAXATION AND ASSESSMENT

There will be presented in this chapter an evaluation of the basic features of the local taxation and assessment systems in use both in Pennsylvania and in Maryland. While it may be assumed that the county financing of education will, if adopted, have at least a partial equalizing effect upon counties which have been supporting education upon the basis of smaller units, this chapter will analyze the data pertaining to the weight of local taxation in both states and will attempt to answer the question of the extent of existing variations within the selected counties and among them. In addition, since the financing of all local major governmental functions is on a county basis in Maryland, an analysis from this standpoint will be made in both states to ascertain what relation taxation for school purposes bears to taxation for all purposes.

In any consideration of the source of funds necessary for the support of public education, the subject of taxation immediately becomes of paramount importance. The following statement is found in a recent publication issued by the Research Division of the National Education Association:[1]

> "A just system of taxation is intimately related to the public welfare, for taxation is by far the most important source of public revenue. The other sources of public money—the landed domain, conquests and tributes, gifts, and public earnings—are, in the modern state, insignificant beside the income derived from taxation. Taxation is important, not alone because of the large proportion of the total revenue which it supplies, but also because it has a direct or indirect effect upon the personal well-being of every citizen."

Since this study is chiefly concerned with the relation of taxation to the public school system, it is interesting to note

[1] "Studies in State Educational Administration", Research Division, N. E. A., Study No. 2, January, 1930.

that in 1920, in the nation as a whole, "about ninety two per cent of the total burden of school support was borne by state and local taxation", but that in 1890, this was only "about eighty six per cent."[2] It is especially significant, too, that "the percentage borne by local taxation increased from about 68 in 1890 to about 78 in 1920. During the same interval the proportion borne by state taxation decreased from 18.4 to 13.8 per cent."[3] Since, in general, state taxation is less direct than is local taxation, it is clear that more and more the burden of the support of the public school system is falling directly upon the individual citizen.

Advance pages from the most recent Biennial Survey of Education[4] indicate that "The general trend downward in percentage of total public school expenditure derived from state sources continued during the biennium 1929-1930 in most states, but in a few the percentage increased." The same publication[5] shows that the per cent of school revenue derived from the state in Maryland decreased from 31.3 in 1917-1918 to 18.2 in 1927-1928, while in Pennsylvania an opposite tendency was observed. There, the per cent of school revenue derived from the state was 9.4 in 1917-1918 and in 1927-1928 it had reached 16.9 per cent. It is probable that this increase has resulted from increased state appropriations due to the passage of the Edmond's Act, although it is seen to be 1.3 per cent lower than the figure representing the proportion of state support in Maryland.

It is fundamental, of course, that any method of public taxation to be reasonably efficient must have as its basis a sound system of assessment. Especially is this true where the general property tax yields the largest source of revenue, as is the case in both Pennsylvania and Maryland.

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[2]Pittenger, B. F.: Introduction to Public School Finance, p. 345.
[3]Pittenger, loc., cit.
[4]Deffenbaugh, W. S., and Covert, Timon, "Biennial Survey of Education in the United States", p. 37, U. S. Office of Education, Bulletin No. 20, 1931.
[5]Ibid., Table 4, p. 36.

Assessment and Taxation in Pennsylvania

The assessment of Property in Pennsylvania is distinctly a local problem, in the hands of officials elected for that purpose. Legally, at least, there is statutory provision that real estate shall be assessed at its full or "actual sale value" and that the "percentum of assessment shall be the same throughout the county."[6] It is, however, an accepted fact that this provision is not carried out in the strict letter of the law. The anticipatory element that is present in assessing property at its "actual sale value" precludes it. The amount which property will bring at a duly advertised sale depends almost entirely upon who wants it and for what purpose it is wanted. The same property might bring one price when purchased by a farmer for personal farming purposes and something entirely different if it is desired for a country estate by a wealthy individual from a nearby city.

The only way in which the intent of the law can be carried out is to keep an accurate record of sales, a procedure for which the machinery is not provided adequately in Pennsylvania.

It was probably intended, however, by early legislators that the Act of 1842 would take care of this situation, for provision was made that the county commissioners in each county should form a board of revision of taxes.[7] This has come to mean in actual practice, that the county commissioners form a board of appeals to "consider communications for properties valued too high or too low and to make necessary adjustments."[8]

The following property is set up[9] as being subject to assessment for local taxation in Pennsylvania:

"I. Real estate, viz., all houses, lots of ground and ground rents, mills and manufactories of all descriptions, all furnaces, forges, bloomeries, distilleries, sugar houses, malt houses, breweries, tan yards and ferries.

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[6]72 Pennsylvania Statutes, 5101.
[7]72 Pennsylvania Statutes, Sec. 5161, 1842, July 27, P. L. 441, par. 101.
[8]72 Pennsylvania Statutes, Sec. 5166.
[9]Op. cit., Sec. 7071.

II. The following personal estate, viz., all horses, mares, geldings and cattle over the age of four years.[10]

III. All offices and posts of profit, professions, trades and occupations,[11] and all single freemen above the age of twenty one years who shall not follow any occupation or calling."

In all school districts of the first and second class assessments for taxation for school purposes are the same as those for local municipal purposes.[12] In fourth class districts municipal, school and county taxes are all levied upon the same assessment basis, except that occupations and professions are not used for school taxation. The same situation exists in third class districts with the exception that

> "In all school districts of the third class in this Commonwealth which are located wholly within the boundary lines of any city of the third class in said Commonwealth, and where such third class school district comprises the same territory as such city of the third class in which the same is so located, the school taxes shall be levied and assessed on the real estate and personal property therein as contained in the assessment made for city tax purposes."[13]

There is also a four mill tax on money at interest for city and county purposes.[14]

Assessment and Taxation in Maryland

In Maryland, the assessment of property in each county is in the hands of a supervisor of assessments, appointed by the State Tax Commission from a list of five names submitted by the county commissioners. The duties of these supervisors are substantially as follows:[15]

> "(a) To exercise general supervision over assessments of property, with the powers of a chief assessor, but without power to make a final assessment, that being the function of the County Commissioners.

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[10]Repealed, Act of 1927, April 28, P. L. 491.
[11]Act of 1927, April 28, P. L. 491, exempts farmers from occupation tax.
[12]School Laws of Pennsylvania, Secs. 525, 538.
[13]Ibid., Sec. 540.
[14]72 Pennsylvania Statutes, 4821.
[15]Maryland State Tax Commission, 7th Report, p. 6.

(b) To appeal to the State Tax Commission from any action of the County Commissioners in assessing, reducing or increasing an assessment or in refusing to assess, reduce or increase any assessment that he deems improper.

(c) To visit the districts in his county at frequent intervals to obtain data as to property values, and to keep informed as to sales.

(d) To recommend increases or decreases in assessments to the County Commissioners, and to aid them in the general administration of the tax laws."

The above mentioned State Tax Commission of Maryland consists of three members, with the duty in general, of supervising the "administration of the assessment and tax laws of Maryland, and of each county or city thereof."[16] This Tax Commission is also specifically charged to "formulate a uniform plan for the assessment of property which shall be followed strictly by the County Commissioners", and to see that "all persons, firms, and corporations shall be assessed alike for all kinds of property."[17] Provision is also made that all property directed to be assessed "shall be assessed at the full cash value thereof on the date of finality."[18] Since the State Tax Commission is charged as previously mentioned with the general administration of the tax laws, the carrying out of this mandate becomes one of its chief functions.

The direct assessment of real and personal property, subject to ordinary taxation [19] in the counties is in the hands of the county commissioners of each county concerned. Provision is made, however, that the following items shall be assessed by the State Tax Commission:[20]

(1) Shares of stock in any national bank or any domestic corporation.

(2) Shares of stock in domestic finance corporations representing business done in the state.

(3) Rolling stock of railroads worked by steam.

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[16]Tax Laws of Maryland, Secs. 153-181.
[17]Ibid., Secs., 173, 166.
[18]Ibid., Sec. 11.
[19]"Direct taxes imposed in respect of real and personal property". Ibid., Sec. 4.
[20]Ibid., Sec. 10.

(4) Distilled spirits.

(5) Tangible personal property of any domestic ordinary business corporation.

The following types of property in the various counties or cities of the state are subject to taxation for ordinary purposes:[21]

"(1) All real properties.

(2) All tangible personal property.

(3) All interest-bearing bonds, certificates of indebtedness or evidences of debt.

(4) All interest-bearing mortgages on real or tangible personal property.

(5) All dividend-paying shares of stock or shares in any foreign corporation (other than banks).

(6) All shares of stock in any national bank in the state.

(7) All shares of stock in any domestic corporation other than an ordinary business corporation.

(8) All money belonging to residents of the state, resulting from the proceeds of stock sold to avoid taxation.

(9) All interest, shares or proportion in all ships or other vessels.

(10) The stock in business of goods, wares and merchandising of every person, firm, foreign corporation and domestic ordinary business corporation engaged in commercial business in the state."

There is also in Maryland a direct state tax varying from year to year levied at the full rate upon real estate and personal property. Railroad real estate, rolling stock and furniture assessed at under $500 are not included, however, in the assessable basis for state purposes. The funds received from these taxes may legally be used for two purposes only—payment of the interest and principal on state bonds still outstanding and support of the public schools.[22] The owners of shares of bank and trust companies, taxed at limited rates for county purposes, also pay the full state rate. Likewise, fidel-

[21]Ibid., Sec. 6.
[22]"Equalizing Educational Opportunities in Maryland", p. 62.

ity, casualty and guaranty company shares are assessed for the full state rate.[23] This full state rate in 1929 was $25\frac{74}{100}$ cents on each $100 of assessed valuation.

The assessable basis upon which the full rates for county purposes are levied consists, in part, of the real estate and personal property of individuals and corporations. Certain counties, as follows, have taken advantage of Chapter 393 of the Acts of 1916, in exempting household furniture to the extent of $500 for county taxation: Allegany, Baltimore, Calvert, Washington. Carroll, Frederick, and Garrett Counties, on the other hand, exempt furniture to the extent of $100.[24] Another significant fact is noted in the exemption from assessment for all taxation of $500 in value of the farm implements of any farmer and of "wearing apparel of any description, except diamonds and other costly jewelry not habitually worn on the person."[25]

In addition to the real estate and tangible personal property taxable at the full county rate, the following are assessed by the State Tax Commission and certified to by the County Commissioners for taxation at the full county rate:[26]

Railroad rolling stock.

Ordinary business corporations.

Domestic shares corporations.

Personal property of non-stock corporations and distilled spirits.

The General Property Tax

In both states, real estate furnishes the great bulk of the basis for taxation for local purposes. Maryland, however, goes a step farther than Pennsylvania, and taxes real estate for state purposes. Taxes on real estate generally are considered as an important part of the larger general property tax. The complete subdivisions of this tax are as follows:[27]

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[23]Ibid.
[24]"Seventh Report of the State Tax Commission of Maryland", p. 11.
[25]Tax Laws of Maryland, Pars. 12, 13, p. 9.
[26]1930 Report, Maryland State Dept. of Education, Table 182, p. 282.
[27]"Studies in State Educational Administration, Number 2", p. 2.

1. Taxes on real estate.
   (a) Taxes on land.
   (b) Taxes on land resources (forests and mines).
2. Taxes on personal property.
   (a) Taxes on tangibles (household goods, automobiles, jewelry, etc.).
   (b) Taxes on intangibles (money, securities and credits).

The general property tax has been the subject of widespread condemnation, by practically every recognized authority on taxation. Personal property is difficult of measurement by the assessing authorities and in the case of intangibles is easily concealed, thus escaping taxation. As has been previously mentioned herein, it is also difficult to place an accurate and equalized evaluation upon real estate and even when properly assessed, it is not necessarily an accurate indication of one's ability to pay, especially in the face of declining values of agricultural products.

In speaking of the general property tax as it pertains to the farmer, Morrison maintains that the prices which the farmer gets for his produce are not regulated by his taxes, a situation somewhat at variance with other ownerships of property. He further states:[28]

> "In the first place, farming communities ordinarily have very little income from securities with which to help pay taxes which are levied against their land and buildings. In the second place, the farmer's personal property is tangible and is discovered. You may conceal property in a municipal bond, but you cannot very well hide a cow or a mowing machine."

Weaver[29] cites evidence to show that in 1925 in Pennsylvania, 13.6 per cent of the per capita income was required to pay taxes for the farm population and 9.5 per cent for the non-farm group. The same author in another source writes as follows:[30]

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[28]Morrison, H. C.: Financing the Rural School, p. 224, National Society for the Study of Education, 30th Year Book, 1931.

[29]Weaver, F. P.: The Rural Tax Problem in Pennsylvania, p. 6.

[30]Weaver, F. P.: The General Property Tax as a Factor in the Unsatisfactory Agricultural Situation, Annals of the American Academy of Political and Social Science, Publication No. 2270, March, 1929.

> "Studies conducted during 1925 and 1926 show that in some townships in Pennsylvania, taxes for local schools and roads equal the entire earning capacity of all the real estate in those townships."

In like manner, the Pennsylvania assessment of property subject to local taxation has long been the subject of attacks of educators and experts on taxation. Assessments made by people elected locally have been proved to vary greatly in their relation to the real value of the property assessed.[31] This can not be otherwise when the office is a politically important one and when local influences and personal acquaintanceships enter into the situation.

School board secretaries are required to estimate annually under affidavit, for the purposes of the distribution of state subsidies to school districts, the relationship, on the average, which the assessed valuation of real estate bears to the real valuation. However, this is an exceedingly difficult thing to do. No accurate data are available for making the estimate other than the records of a few properties sold and the knowledge which the secretary and probably the assessor, as consultant, have as a result of a familiarity with local conditions. The Commission to Study the Distribution of State Subsidies to School Districts recently reported on this matter as follows:[32]

> "While valuations so obtained cannot be considered true valuations, experience with other states shows that they indicate variations in ability to support schools which may be taken as typical of the true situation."

One of the most authoritative comments upon the assessment ratio in Maryland is found in a recent publication of the State Department of Education. It reads as follows:[33]

> "There is a tendency for the editors of newspapers in Baltimore to assert that real and personal property in the city is taxed up to 100% of its value, whereas it is claimed that in the counties the ratio between assessment and value is considerably lower. The proof of such claims is usually based on the ratio of assessment to selling price for deeds

[31] "Report of Commission to Study the Distribution of State Subsidies to School Districts", Chapter IV.

[32] Ibid., p. 19.

[33] "Equalizing Educational Opportunities in Maryland", p. 69.

of sales which are registered and available. So many factors are involved in such comparisons that they are meaningless unless they cover a large number of cases over a period of years. The State Tax Commission uses data showing such relationships to correct its assessments and keep them in close relation to actual values. The long continued functioning of the State Tax Commission has probably brought about greater uniformity in these ratios."

Analysis of Data

In attempting to understand the equalizing effect of a county tax for school purposes, it is necessary to measure as accurately as available data will permit, the present extent of the variations in tax rates in the existing local districts. In Pennsylvania, these are reported upon the Annual Financial Reports of school districts, as are also the rates for township or borough and for county purposes. The school board secretary likewise, as previously described, enters on this report the assessed valuation of the district and the relation which this figure bears on the average, in his estimate, to the real valuation. These ratios represent the best data available upon the situation on a state-wide basis.

In Table LIII is found a distribution showing the ranges and medians of the tax rates actually levied in the selected Pennsylvania counties for school, township or borough and county purposes, as well as the totals of these rates, the relation of the school tax rates to the total local rates, and the per capita tax rates in dollars. The same distribution is made in Table LIV for the tax rates corrected for each district on the basis of the ratio of the assessed to the real valuations as reported under the sworn statement of the school board secretaries. In Column 2 of Table LIV is found the range of these ratios together with county ratios calculated on the basis of the assessed and corrected valuations as reported by the Department of Public Instruction. It should be stated further that these ratios in every case are the averages for the three-year period, 1927-1928, 1928-1929, 1929-1930, and are the ones used in apportioning state funds to the school districts for the 1931-1933 biennium.

TABLE LIII

DISTRIBUTION OF LOCAL TAX RATES LEVIED IN THE SELECTED PENNSYLVANIA COUNTIES, 1929-1930

1 Counties	2 School tax rate in mills		3 Township or boro tax rate in mills		4 Total local tax rate in mills*		5 Relation of school tax rate to total tax rate in Per cent Col. 4÷Col. 2		6 Per capita school tax rate in dollars	
	Range	Median	Range	Median	Range	Median	Range	Median	Range	Median
Adams	0–24	14.81	6–20	14.48	16–49	34.74	0–52.2	38.85	$1.00–5.00	$3.19
Bradford	6–50	19.14	6–20	15.36	39–86	54.81	12.5–58.1	34.22	1.00–5.00	3.37
Chester	7–25	13.89	3.5–18	12.88	18–44	26.54	33.3–60.	48.	0–5.00	4.22
Clearfield	12–60	30.25	5–36	19.30	51.5–102	69.62	20.2–62.4	33.	0–5.00	4.25
Crawford	6–27	17.29	9–20.5	15.52	32–57	43.83	18.8–55.	37.96	0–5.00	3.42
Greene	2–25	10.55	4–20	13.75	14–50	28.24	13.3–52.1	37.5	1.00–5.00	2.42
Pike	5–19	13.89	6–15	14.	23–38	29.9	21.7–41.9	35.71	0–5.00	2.20

*Includes county tax rates as follows—Adams 9 mills, Bradford 22 mills, Chester 4 mills, Clearfield 21.5 mills, Crawford 12 mills, Greene 8 mills, Pike 8 mills.

TABLE LIV

DISTRIBUTION OF THE CORRECTED LOCAL TAX RATES IN THE SELECTED PENNSYLVANIA COUNTIES, 1929-1930

1	2		3		4		5		6		7	
Counties	Rate of Assessment		School tax rate in mills		Township or boro tax rate in mills		County tax rate in mills		Total tax rate in mills		Relation of school tax rate to total local tax rate in per cent Col. 6 ÷ Col. 3	
	Range	Total county	Range	Median	Range	Median	Range	Median	Range	Median	Range	Median
Adams	50– 75	61.3	4.2–16.2	8.16	3.6–12	7.5	4.5– 6.8	5.51	15. –29.4	20.	25. –52.1	39.16
Bradford	50–100	75.7	4.6–35.	18.1	4. –20	13.8	11. –22.	22.	30.4–75	53.04	12.5–58.1	34.53
Chester	31– 90	57.4	4.8–16.7	8.39	2.2–13.6	7.	1.2– 3.6	2.94	10. –29.5	16.98	33.3–60.	48.
Clearfield	28–100	38.3	4.9–29.5	15.14	2.3–20.	8.85	6. –21.5	10.55	17.6–73.5	33.96	22.4–63.4	43.99
Crawford	30–100	46.1	4.2 25.0	10.34	4.8–13.9	9.56	3.6–12.	8.26	14.1–52	27.16	18.8–53.1	37.96
Greene	33– 75	50.6	.8–12.5	5.5	1.6–11.	5.5	2.6– 6.6	4.53	10.6–26.3	14.5	13.4–52.1	37.5
Pike	78–100	98.3	5. –19.	11.66	6. –15.	12.85	6.2– 8.	8.	20.2–38.	29.9	21.7–51.3	35.71

On the first examination of the data in Table LIII one's attention is drawn to the wide ranges shown in the tax rates levied for school purposes, the greatest being exhibited in Clearfield County. The median tax rate levied in this county is also higher than any other in the group by more than one-third. One district in Adams County, with a large parochial school enrollment, levies no mill tax for school purposes, all necessary funds being raised by a per capita tax. One wealthy district in Greene County also levies a nominal tax of two mills for school purposes, while other districts in the same county must tax themselves 25 mills for the same purpose. It is significant to note also that the highest median school tax (Clearfield) in the group exceeds the lowest (Greene) by almost 300 per cent.

In observing the township or borough tax rates, one does not find either so wide a range or such a variation among the medians. This is probably largely accounted for by the fact that authority from the court must be secured in order to levy a township (road) tax higher than 10 mills.

The wide variations in the county tax rates shown in the footnote to Table LIII contribute largely to the still wider range in the tax rates levied for all local purposes. In this table, Clearfield exhibits a difference of 50.5 mills between the lowest and highest total tax rates. Pike County shows the smallest range (15 mills) with Crawford, Chester, Adams, Greene and Bradford ranking in ascending order. The lowest median total rate for local purposes is found in Chester County with 26.54 mills and the highest in Clearfield with 69.62.

In calculating the ratio which the local school tax levy bears to the total local levy, the per capita tax for school purposes has not been considered nor has any consideration been given to the fact that taxes for other county and borough or township purposes are also levied upon an assessment for occupations, except in the case of farmers as previously stated. This ratio is, therefore, calculated upon the assessment which is common to all the rates levied, the equivalent in Maryland of the assessment taxable at the full rate for county purposes. It seems highly probable that the per capita tax will more than

counterbalance the occupation tax and the tax upon money at interest for county purposes as far as the great majority of taxpayers are concerned.

This ratio is, therefore, a significant measure of the part which school taxation bears to total taxation for the taxpayers in the local administrative unit. It does not, of course, include such local levies, as water rent, sewer tax, etc., which are levied by some municipalities and which vary widely. In many cases these are not levied in terms of mills on the dollar or any equivalent units.

The highest median ratio is found in Chester County and the lowest in Clearfield. The greatest range, from 0–52.2 per cent, is found in Adams County, with Pike showing the smallest, a range of but 20.2 per cent. The median per capita school tax varies from $2.20 in Pike County to $4.25 in Clearfield County. The range is from 0 to $5.00 in Chester, Clearfield, Crawford and Pike to a range of $1.00 to $5.00 in Adams, Bradford and Greene Counties.

A much more significant analysis of the situation is found in Table LIV constructed on the basis of the tax rates corrected upon the ratios which estimates of the assessed valuations bear to the real valuations as furnished by the school board secretaries and used by the state for appropriations.

An extremely wide range of rate of assessment is noticed in five of the counties in the group. A uniformly high ratio is reported in Pike County, while a rather narrow range (25%) is found in Adams. When the ratio for each county, as a whole is considered, the lowest (38.3%) is found in Clearfield and the highest in (98.3%) Pike County.

The median corrected school taxes are seen to range from 5.5 mills in Greene County to 18.1 mills in Bradford. Bradford County also exhibits the widest range (30.4 mills), with Clearfield (24.6) and Crawford (20.8) ranking next in order. The lowest range is seen in Greene County,—11.7 mills, with the remaining ones adhering very closely to this figure.

The median corrected borough or township taxes for the seven counties vary from 5.5 mills in Greene County to 13.8 in

Bradford. The greatest range is shown in Clearfield with the lowest in Adams County.

A very wide range is found in Clearfield County for the corrected county tax rate (6–21.5 mills) and the smallest in Pike (6.2–8). The corrected median varies from 2.94 mills in Chester to 22 in Bradford.

When the total corrected tax rate is considered, the greatest range is seen again in Clearfield County, one district, Wallacton, paying a total local tax rate of 17.6 mills and Burnside in the same county 73.5 mills, while the median for the county is 33.96. Although Bradford County has a higher median rate (53.04 mills), the range is not as great, 30.4–75. Greene and Chester Counties exhibit median total rates of 14.5 and 16.98 mills respectively, the lowest of the seven counties. Adams has the lowest range (15–29.4) and also a reasonably low median (20 mills).

In determining the relation of the corrected school tax rate to the corrected total local rate, the same procedure was used as described in connection with the interpretation of Table LIII. Outside of Chester and Clearfield, the median percentages which the school taxes bear to the total are quite uniform for the five counties. Chester County presents the highest median per cent (48), as was the case for the levied tax rates. Clearfield is a relatively close second with 43.99 per cent.

In each county, the range of the proportionate burden of school taxation to total local taxation varies very widely, indeed. In no case is the difference between the ratio of the lowest and the highest district less than 26.7 per cent. The greatest difference is noted in Bradford County between Overton Independent and Sayre Borough (Table II Appendix), with 12.5 and 58.1 per cent respectively. Whether this variation which seems to exist to a rather large degree in each county is a result of the variation in the educational facilities provided, or whether it is due to lack of need for funds for other local purposes such as roads, streets, etc., or to a lack of the disposition to provide them, it is not possible to say. It is quite likely that all of these causes are generally operating.

It is certain that a township with a large percentage of its roads maintained by the state will have a high percentage of its taxes devoted to school purposes. This, of course, may not be objectionable as far as that district is concerned, but it is entirely possible that a neighboring district with all or nearly all of its roads maintained locally will have to neglect either its roads or its schools or saddle its citizens with an extremely high rate of total local taxation. Inasmuch as the burden of taxation is upon tangible property or upon real estate in Pennsylvania, the perniciousness of any system of small unit taxation is singularly evident. One cannot escape this variation as long as the local district stands as a separate entity for local tax purposes. Morrison, in commenting upon this situation, states:[34]

> "In the days in which the district system came into being, economic society in the United States was strikingly homogenous. You might divide up a state according to convenience, and the parts, however small they might be, would be likely to be pretty much the same kind. Under such conditions, it made little difference whether districts were large or small."

For Maryland, Table LV presents a picture of the local tax situation in the counties used in this study, excluding such taxes which may be levied by towns and other municipalities for strictly local purposes, as for police and fire protection, sewerage, highways, etc. All other taxation for roads, schools and county administration is entirely on a county basis. The rate is set by the county commissioners after budgetary estimates, and in some cases, as in Washington County, the specific part of the levy to be devoted to the separate details and divisions of the county government is indicated upon the individual tax bills. For these purposes, therefore, the rate is uniform throughout each county.

A study of the rates for schools presented in the table just mentioned, indicates a rather close uniformity in the seven counties and rates which are rather low when compared with those in Pennsylvania. A part of this, of course, is due to the

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[34]Morrison, H. C., loc. cit., p. 227.

TABLE LV

TAX RATES LEVIED**IN MILLS ON THE DOLLAR ON THE FULL TAXABLE BASIS FOR COUNTY AND STATE PURPOSES IN THE SELECTED MARYLAND COUNTIES COVERING THE SCHOOL YEAR 1929-1930

1 Counties	2 Rates for schools	3 Rates for roads	4 Rates for all other county purposes	5 Total county rates	6 Ratios school tax rates to total local rates in per cent Col. 2÷Col. 5	7 State tax rates	8 Total for county and state
1. Carroll	9.17	1.000	7.33	17.5	52.40	2.574	20.074
2. Frederick	6.410	3.482	3.108	13.0	49.31	2.574	15.574
3. Baltimore	7.275	5.000	4.225	16.5	44.09	2.574	19.074
4. Allegany	7.827	1.577	5.296	14.7	53.24	2.574	17.274
5. Washington	7.900	2.780	2.320	13.0	60.77	2.574	15.574
6. Garrett	7.850	....*	10.450	18.3	42.89	2.574	20.874
7. Calvert	8.350	5.940	6.810	21.1	39.57	2.574	23.674

*Levy for roads not separated from "other county purposes."
**Data from tax bills submitted by County Commissioners.

different basis of assessment for full county purposes in Maryland as explained earlier in this chapter. On the other hand, the published tax rates for various purposes between the Maryland counties are not entirely comparable because of the variations in the bases taxable at limited rates.[35] It is true also that if taxes were levied there upon real estate, or real estate and personal property alone, as in Pennsylvania, the rates for schools would probably be higher. Then, too, the taxes levied for schools do not always include certain amounts paid directly for debt service upon bonds previously issued for capital outlay. Such amounts are included under "other county purposes." The table is not presented, therefore, for a comparison of school tax rates. It is, however, an indication of the weight of taxation upon the individual taxpayer, especially the *rural taxpayer*. In that respect the situation may be compared with the one in existence in Pennsylvania. There is also the important fact that, whether or not assessments are uniform in the Maryland counties, the tax rate within the county is uniform, with the exceptions noted. This, of course, is in direct contrast to the Pennsylvania system in which the variations have been shown in Tables LIII and LIV and further by Tables I to VII in the Appendix.

Another aspect of the Maryland situation is presented in the data below selected from statistics shown in complete form for all of the counties in Chart 33, page 259 of the 1929 Report of the Maryland State Department of Education. Taking the actual amounts of the 1930 county budgets used for schools for the purposes of current expenses, debt service and capital outlay, the relationships which these bore to the total county budgets were as follows:

Allegany	—62.1 per cent
Washington	—60.8 per cent
Carroll	—51.6 per cent
Frederick	—52.2 per cent
Garrett	—43.6 per cent
Calvert	—40.4 per cent
Baltimore	—39.7 per cent

All counties of the state—48.1 per cent

[35] "Equalizing Educational Opportunities in Maryland", p. 45.

In the following year, the State Department of Education developed similar data including the amounts levied by incorporated towns, sanitary districts, etc., which in certain counties perform functions delegated in other counties solely to the county.[36] If these figures are included, the percentages of the total county budgets devoted to schools vary considerably. Chart 36, page 279 of the 1930 Report, presents the "Per Cent of 1931 Budgets for Counties and Incorporated Towns and Districts Used for Schools", in which the following percentages are noted in the selected counties:

Carroll	—46.6 per cent
Allegany	—45.6 per cent
Baltimore	—42.5 per cent
Washington	—41.2 per cent
Calvert	—41.0 per cent
Frederick	—40.2 per cent
Garrett	—39.9 per cent

Average for all counties of the state—42.6 per cent

To appreciate the true burden of taxation upon the individual taxpayer in Maryland, there must be added to the county tax rate, the state tax of 2.574 mills levied in 1929. The total direct taxation rates are, therefore, shown in Column 8 of Table LV. In this connection, it is interesting to note that when these total rates are compared with the total rates levied in Pennsylvania, the median rate for every county studied in that state exceeds the figure of its similar county in Maryland. However, when the corrected total median rates are studied in Table LIV, it is noted that again in four of the seven Maryland counties, the total rates levied are less than the corrected rates in their similar Pennsylvania counties. It is in the case of Adams, Chester and Greene Counties that these rates are exceeded by Baltimore, Carroll and Garrett. The pertinent fact in connection with this study, however, is that within each of the Maryland counties, the tax rate is uniform, in direct contrast to the extreme variations measured in Pennsylvania.

[36] 1930 Report, Maryland State Department of Education, p. 278.

Speaking of the Maryland system of financing education, Swift[37] lists the outstanding features as follows:

1. Organization of the school system on the basis of the county unit.
2. Requiring from every county the submission of a budget showing the cost of providing a minimum school program.
3. An assured fund from state and county sources sufficient to meet the costs submitted by the county and approved by the state authorities.
4. A state minimum salary scale graduated to the professional qualifications of teachers.
5. Liberal state appropriations available to all counties regardless of wealth.
6. The apportionment of the major portion of school funds upon the basis of school census and aggregate attendance.
7. Provision of a State Equalization Fund available to every county which levies a county school tax of a minimum rate fixed by law (6.7 mills) and is unable to finance from all other state and county funds its minimum state approved program.
8. The computation of the total county school budget on the theory that teachers' wages should constitute 76 per cent of the total current costs.

Summary

This chapter has emphasized the importance of local taxation as the chief source of revenue from which expenditures for public education have been and are being derived. While, in general, the proportion of revenue for school purposes received from the state has steadily declined, Pennsylvania, due probably to the passage of the Edmonds Act, has shown an opposite tendency, increasing the percentage of funds received from the state from 9.4 in 1917-1918 to 16.9 per cent in 1927-1928. In Maryland, on the other hand, the percentage derived from the state decreased from 31.3 to 18.2 per cent in

[37]Swift, Fletcher Harper, "State School Funds and Their Apportionments", p. 39, and American School Board Journal, Vol. 76, p. 39-41, Feb., 1928.

the same period. Pennsylvania was one of a total of seven in the Union exhibiting the tendency above described.

It has brought out the fact that the assessment of property in Pennsylvania is distinctly a local problem, with conditions being present which almost preclude an equable assessment. The present plan in the state dates back to legislative enactments of 1842. The chapter has also outlined the assessment basis in the commonwealth.

The assessment of property in each county in Maryland is supervised and directed by the State Tax Commission, with a supervisor of assessments appointed by them working in each county and cooperating with the county commissioners who are in immediate charge of the direct assessment of real and personal property. Certain specific types of property are assessed directly by the State Tax Commission which body is constantly striving, under legal authority, to equalize assessments throughout the state and to bring them as nearly as possible to the actual sale value.

This chapter has also brought out the fact that a wider variety of types of property is available for assessment in Maryland than in Pennsylvania for local purposes and that the former state also makes use of a direct state tax, largely devoted to school purposes. Each state, however, makes much use of the general property tax as a chief source of local public revenue, a procedure which is widely condemned.

The chapter has emphasized the weaknesses of the present method used in Pennsylvania to ascertain the true valuation of taxable property but has maintained that the estimates of the school board secretaries, made under affidavit, and taken for a three year period, represent the most reliable data obtainable on a state-wide basis at the present time.

Tabular data have been presented showing the ranges of tax rates levied as well as the medians in each county for school, borough or township and county purposes. The same facts have been given for the total local tax rates, the percentages which the school rates are of the total, and the per capita school tax rates in Pennsylvania. With the exception of the last named item, similar data have been presented for the Penn-

sylvania tax rates corrected in accordance with the ratios which the assessments bear to the real valuations made in the manner above described.

In every phase of the problem studied there have been found to be tremendous variations in the tax rates levied for school and township or borough purposes within each of the seven Pennsylvania counties. School tax rates, however, vary more than those for other local purposes. In the case of the corrected school tax rates, the widest range (30.4 mills) is found in Bradford County with Clearfield and Crawford ranking next in order. In each county, the range of the proportionate burden of school taxation to total local taxation also varies widely. In no case was the difference between the ratio of the lowest and the highest district in any county less than 26.7 per cent.

Similar data presented for the Maryland counties indicate the uniform tax rates in each county for all local purposes. Here a remarkbaly equable distribution of the cost of education is secured in direct contrast to the variations existing in Pennsylvania. Fewer variations are found in the rates levied for schools among the seven counties in Maryland than for roads and other county purposes. This situation, of course, is a contributing factor in the variation among the counties of the ratios which the school tax rates bear to the total county rates levied for all purposes.

Calculated on the basis of the percentages of the total county budgets used for school purposes, the figures for 1929-1930 varied in the group studied from 39.7 per cent in Baltimore County to 62.1 per cent in Allegany. When the amounts raised for purposes other than schools by incorporated places was considered, the range was reduced to a variation of 6.7 per cent or from 39.9 per cent in Garrett to 46.6 in Carroll County.

It seems evident, therefore, that the Maryland plan of larger unit administration, coupled with a sound system of assessment would remove most of the inequalities within the Pennsylvania counties for all local purposes but probably would do little toward equalizing variations among the different counties of the state unless a widely administered equalization fund

were established as is now functioning in Maryland. It is evident, too, that the county as the unit for school purposes would remove only a part of the varying burden of taxation. Uniformity for roads and other administrative purposes is also necessary to accomplish this end.

Detailed statistical data for 1929-1930 for each of the Pennsylvania counties studied are presented in the Appendix. Later in this study, the county tax rates that would be necessary to support the present educational program in each of the seven counties will be submitted.

CHAPTER VIII

OTHER FACTUAL DATA RELATED TO THE FORM OF ADMINISTRATIVE ORGANIZATION IN EACH STATE

With the possibility of there being certain causal relationships to the type of administrative unit, there will be presented in this chapter data indicating the progress in the elimination of one-teacher schools in the selected counties of both states during the last decade and the percentages of elementary school graduates entering secondary schools in 1929. Figures will also be shown for the possible cost eliminations that might be made should Pennsylvania adopt the county unit plan and for the county tax rates that would be necessary to support the present educational program on a county basis.

Progress in Eliminating One-Teacher Schools

That the one-teacher school is an institution which has largely outlived its usefulness in American democratic society is a statement which is probably accepted by the great majority of educators today. There is little especially modern in the expression, however. Writing upon the topic in a recent publication,[1] Covert states

> "Nearly one hundred years ago Horace Mann made his vigorous attack upon the one-room schools. Since that time educators have kept up a continual bombardment against them. It has been pointed out that one teacher working alone with all grades and with pupils of all ages can not be expected to accomplish results equal to the results made possible by the specialization of the well-graded school; that one-room schools are taught by the least-trained and the youngest teachers; that the percentage of attendance in one-teacher schools is far below that of grade schools; and that the social advantages of centralized schools give them superiority in training for life that small isolated schools can not reach."

[1] Covert, Timon, "Educational Achievements of One-Teacher and of Larger Rural Schools", p. 1, U. S. Bureau of Education, Bulletin No. 15, 1928.

He further writes[2]

> "During the past 25 years a widespread sentiment in favor of centralized schools has been created, and these schools are increasing at the approximate rate of 1,000 a year in the United States, while the number of one-teacher schools is decreasing at five times this rate."

Data are introduced[3] to show that "the number of one-teacher schools has decreased from approximately 189,000 in 1920 to approximately 161,000 in 1926—an average annual decrease for the six years of approximately 4,600."

Many studies have been made of the comparative academic results of the achievements of these two types of schools, especially as they pertain to those subjects in which progress is more easily and accurately measured. The results of a majority of these studies have been summarized in the Bulletin above mentioned and "indicate that pupils trained in large rural schools acquire a better mastery of the fundamentals of learning, grade for grade, than those trained in one-teacher schools."[4] Of course, these results are not absolutely conclusive because there are a few studies which seem to show the opposite. While there is need for much further study, most of the evidence seems to point to a rather well-defined superiority of the larger school over the one-teacher organization.

Comparative data on the definite progress of consolidation, however, are difficult to secure because of a lack of any common definition of the term among the states and because of the varied sizes of the new organizations. Pennsylvania defines the consolidated school as follows:[5]

> "A 'consolidated school' is a school formed by uniting two or more public elementary schools or two or more public elementary schools with the grades of other public schools, which prior to such union were maintained in separate buildings and after such union are maintained in one-school organization taught by two or more teachers."

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[2]Ibid., p. 2.
[3]Ibid.
[4]Ibid., pp. 21-22.
[5]School Laws of Pennsylvania, Section 3702.

That the framers of the School Code considered consolidation a desired attainment is clearly seen by the following provision:[6]

> "Whenever graded schools can be made to accommodate the pupils of one or more ungraded schools, by consolidating said ungraded school or schools with another school, either graded or ungraded, it shall be the duty of the board of school directors, to abandon the one-room school or schools, and, instead of repairing or rebuilding the one-room schoolhouse or schoolhouses, they shall erect a suitable modern building for the purpose of consolidating and properly grading all of the said schools. Provided that no pupil of the abandoned schools shall be required to walk more than a mile and a half to the new school building."

The actual effect of this mandate upon the stimulation to consolidate schools is questionable, however, because the consent of the electors is usually required before sufficient funds can be procured with which to erect a new building.

On the other hand, no definition of the consolidated school is set up in the Maryland School Laws. A broad, general provision as to the duty of the board of education is found.[7] It follows:

> "The county board of education shall consolidate schools whenever in their judgment it is practicable, and arrange, when possible without charge to the county, and shall pay, when necessary, for the transportation of pupils to and from such consolidated schools."

In view of these facts, therefore, it is clear that the best indication of progress in the direction indicated will be found in the rate of elimination of one-teacher schools. It is, of course, probable that there have been one-teacher schools closed because of decreases in population and low attendance. However, those pupils remaining in school must be cared for and if the schools in question are closed and the pupils sent elsewhere the result is a type of consolidation. In the small districts in Pennsylvania this must be done by action of the local school board, which action is sometimes difficult to secure because of community pride. Many schools with small attend-

[6]Ibid., Sec. 3701.
[7]School Laws of Maryland, 1927, Chapter IV, Section 51.

ance are thus kept in operation for this and other reasons, through a petition to the State Council of Education.[8] In speaking of this matter, Deffenbaugh states:[9]

> "Of fifteen states reporting to the Bureau of Education in 1919, Pennsylvania had the highest percentage of one-room schools within a radius of 2½ miles of the villages. This has come about because the villages when incorporated formed separate school districts, thereby making it necessary for the township to erect school buildings only a mile or two from the village, often just across the boundary line. A county school system would make it possible to consolidate their one-room schools with those of the boroughs."

It is undoubtedly true that there will be one-teacher schools existing in many counties for years to come, possibly always. Covert[10] makes a similar observation:

> "It is very probable", he states, "that there will always be need of some small rural schools. Topographical, social, and economic conditions will necessitate their retention in certain localities."

County Superintendent Dissinger also writes as follows:[11]

> "And what of the twelve one-teacher schools remaining in Pike County? It appears that they will remain open schools for some years to come. In the consolidation of schools, the county appears to have reached the saturation point."

In Tables LVI and LVII are presented data indicating the progress made in eliminating one-teacher schools in both states from 1920 to 1929 inclusive. The data are based entirely upon the definition that a one-teacher school is a school with one teacher having all the elementary grades. In Pennsylvania, this may mean either eight or six grades, depending upon whether or not a junior high school organization is present. In Maryland it may mean six, seven or eight grades depending upon the type of organization in the county and the presence or absence of junior high schools. Of the counties used in this

[8]School Laws of Pennsylvania, Section 1406.

[9]Deffenbaugh, W. S., "A Larger Unit of Administration", 11th Annual Schoolmen's Week Proceedings, University of Pennsylvania, 1924, p. 27.

[10]Covert, Timon, "Rural School Consolidation", p. 6, U. S. Office of Education, Pamphlet No. 6, 1930.

[11]Dissinger, C. B.: School Directory of Pike County, Pa., 1931-1932, p. 7.

study, Allegany and Washington are the only ones having eight grades in the elementary school organization. The former includes these largely as a part of the junior high school wherever this institution has been established.

Although two separate Tables are presented for the Maryland situation, on account of existing racial conditions, it must be kept in mind that in the seven counties selected in Maryland, Calvert is the only one showing any large proportion of colored children. Nevertheless, in view of the social outlook upon the racial question in all of the southern states, it is probable that consolidation is not proceeding and will not proceed as rapidly in the colored schools as in those for the white race. The superintendent of Calvert County stated to the writer in a personal interview that consolidation for the colored schools lagged about ten years behind that for the white schools.

Table LVI presents data showing a total percentage of decrease for the white schools of the selected Maryland counties of 37.5 per cent. The range was from 22.2 per cent in Garrett and Washington Counties to 62.7 in Frederick. When schools for both races were considered the total percentage of decrease for the selected counties was 34.8 per cent with a range of from 22.2 per cent in Garrett to 57.5 per cent in Frederick County. In Pennsylvania the range of the percentage of decrease was from 16 per cent in Greene County to 70 per cent in Pike County. The total (and the percentages for the averages are the same) for the seven counties was 32.9. When both white and colored schools in Maryland were considered, the total percentage of decrease for the decade was 1.9 higher than the one given above for the Pennsylvania group. Specifically, four of the seven Maryland counties, Carroll, Frederick, Allegany and Garrett have reduced their one-teacher schools faster than have their similar counties in Pennsylvania. On the other hand, Chester, Crawford and Pike have exceeded their similar counties in Maryland. It is very questionable whether the difference of 1.9 per cent represented by the totals and averages is large enough to have any significance.

The same relationship as far as the pairs of similar counties are concerned, holds when the white one-teacher schools

TABLE LVI

REDUCTION IN THE NUMBER OF WHITE ONE-TEACHER ELEMENTARY SCHOOLS IN THE SELECTED MARYLAND COUNTIES DURING THE DECADE 1920-1929

1 Counties	2 Number one-teacher elementary schools 1920	3 Number one-teacher elementary schools 1929	4 Decrease 1920 1929	5 Per cent decrease Col. 4 ÷ Col. 2
1. Carroll.....	97	55	42	43.3
2. Frederick.....	111	42	69	62.7
3. Baltimore.....	40	30	10	25.0
4. Allegany.....	51	30	21	41.2
5. Washington.....	81	63	18	22.2
6. Garrett.....	126	98	28	22.2
7. Calvert.....	32	18	14	43.8
Total (above counties).....	538	336	202	37.5

Sources of data—Annual Report, 1929, Table 56, Page 91—Maryland State Department of Education, Baltimore, Maryland.

are considered. There is, however, a somewhat wider difference represented in the totals. In this case, the total and average rate of reduction for the Maryland counties was 37.5 per cent as compared with 32.9 for the Pennsylvania group, a difference in favor of the county unit state of 4.6 per cent for the decade. Here again the difference is so small as to raise a question of its significance. It is especially worthy of note, however, that Pike County, the smallest of the group, exceeds by far any county in either Pennsylvania or Maryland in the rate by which it has eliminated the outworn one-teacher schools from 1920-1929. Certainly this remarkably fine record reflects much credit upon the leadership of the administrative officers.

Elementary School Graduates Entering High School

Some idea of the extent to which the educational offering is being utilized or made effective may be secured from the manner in which the graduates of the public elementary schools continued their education in the existing secondary schools.

TABLE LVII

REDUCTION IN THE NUMBER OF ONE-TEACHER ELEMENTARY SCHOOLS IN THE SELECTED COUNTIES IN PENNSYLVANIA AND MARYLAND DURING THE DECADE 1920-1929

*Pennsylvania**

1 Counties	2 Number one-teacher elementary schools 1920	3 Number one-teacher elementary schools 1929	4 Decrease 1920 1929	5 Per cent decrease Col. 4 ÷ Col. 2
1. Adams	142	116	26	18.3
2. Bradford	188	99	89	47.3
3. Chester	209	144	65	31.1
4. Clearfield	237	153	84	35.4
5. Crawford	244	163	81	33.2
6. Greene	162	136	26	16.0
7. Pike	50	15	35	70.0
Total (above counties)	1,232	826	406	32.9

*Maryland**

1 Counties	2 Number one-teacher elementary schools 1920	3 Number one-teacher elementary schools 1929	4 Decrease 1920 1929	5 Per cent decrease Col. 4 ÷ Col. 2
1. Carroll	107	65	42	39.3
2. Frederick	134	57	77	57.5
3. Baltimore	64	50	14	21.9
4. Allegany	51	31	20	39.2
5. Washington	88	68	20	22.7
6. Garrett	126	98	28	22.2
7. Calvert	50	35	15	30.0
Total (above counties)	620	404	216	34.8

Data for Maryland from Annual Reports of 1920 and 1929, Maryland State Department of Education.

Data for Pennsylvania from Annual Reports of County Superintendents and Applications for Appropriations, Department of Public Instruction, Harrisburg, Pa.

*Includes both white and colored schools.

In 1929-1930 the Maryland State Department of Education made a careful study of this situation in every county in the state and found that "Of 9,479 graduates of county public white elementary schools in 1929, 7,426, or over 78 per cent, continued more advanced work in public, private or parochial schools in the fall of 1929 for at least one school month."[12] The study also shows that "From the counties as a group, slightly over 1 per cent went to private or parochial schools for advanced work."[13]

Table LVIII has been calculated from the data of this investigation which has been kindly made available to the writer through the State Department of Education. Data are there presented indicating the percentage of 1929 elementary school graduates who continued higher education in the fall of 1929 for the selected Maryland counties. This percentage varies from 48.6 in Garrett County to 89.1 per cent in Allegany with its rather pronounced junior high school system. It should

TABLE LVIII

NUMBER AND PER CENT OF 1929 WHITE ELEMENTARY SCHOOL GRADUATES ENTERING SECONDARY SCHOOLS IN THE FALL OF 1929 IN THE SELECTED MARYLAND COUNTIES

1 Counties	2 Number elementary school graduates 1929	3 Number continuing higher education in fall of 1929	4 Per cent continuing higher education in 1929
1. Carroll	244	141	57.8
2. Frederick	966	613	63.5
3. Baltimore	1356	937	69.1
4. Allegany	882	786	89.1
5. Washington	877	660	75.3
6. Garrett	440	214	48.6
7. Calvert	72	55	76.4

[12]1930 Report, Maryland State Department of Education, p. 41.
[13]Ibid.

be noted that all of the other counties of those used in this study, except Allegany, rank at the bottom of the list in this measure.[14]

No separate figures are available for colored children, except for Baltimore County which maintains no colored high school whatever, sending those who pass the examination given by the county superintendent to high school in the City of Baltimore. Out of 119 colored elementary school graduates who took this examination in 1930, but 27 went to high school in the fall of that year.[15] For these Baltimore County paid the tuition. Due to social conditions traditional in the South, the attendance of colored children at high school does not seem to be universally encouraged. Secondary education is not yet everywhere available to them. In view of these circumstances, then, the figures would have little or no significance for the purposes of this study. In Pennsylvania, however, the colored graduates of the elementary school have the same opportunities to attend high school as do those of the white race and no separation of data need be made for that state.

Comparable data concerning high school attendance have been secured from six of the Pennsylvania counties used in this study.[16] The method employed was to ascertain, through the superintendent's office in each case, the total number of elementary school graduates for each district in 1929 or 1930, and the number of those graduates entering high school in the fall of the same years. The facts were secured by the superintendent either from the secretaries of the school boards in the districts paying non-resident tuition, or from supervising principals of districts maintaining their own high schools. This produced data equivalent to that resulting from an actual name-by-name check. In Chester County data secured in the latter manner checked precisely with that obtained by the method

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[14]Op. cit., p. 42.

[15]Personal letter from Baltimore County attendance officer, under date of November 18, 1930.

[16]Data for Greene County obtained but not in quite the same manner and is therefore not submitted. County Superintendent reported in personal letter that "nearly every one goes to high school."

suggested. No account, however, was taken of the length of time the children remained in high school.

The Maryland data presented in Table LVIII indicates those who were enrolled in the higher schools for at least one full month. An investigation was made in three of the seven counties to determine if there were any appreciable number who left school during the first month. Figures from the Attendance Bureaus in Baltimore, Frederick and Calvert Counties were practically negligible. Although data were not available for all of the seven counties, it is felt that the above represent a fair sampling and that the percentages would not be disturbed were these figures to be included.

It will be noted from Tables LVIII and LIX that in every case, except one, a larger percentage of children in the selected Pennsylvania counties entered high school in the year in question than did those in the similar county in Maryland. Clearfield County in Pennsylvania and Allegany County in Maryland exhibit figures but .3 of one per cent apart—89.4 and 89.1 per cent, respectively. It may be claimed that the data for the Maryland counties studied do not properly represent the high

TABLE LIX

NUMBER AND PERCENT OF GRADUATES OF ELEMENTARY SCHOOLS ENTERING SECONDARY SCHOOLS IN FALL OF 1929 OR 1930 IN THE SELECTED PENNSYLVANIA COUNTIES

1 Counties	2 Number elementary school graduates 1929	3 Number continuing higher education in fall of 1929	4 Per cent continuing higher education in 1929
1. Adams	203	175	79.8
2. Bradford	574	552	95.6* **
3. Chester	1419	1307	92.1*
4. Clearfield	1319	1179	89.4
5. Crawford	803	712	88.7
6. Pike	92	76	82.6

*Data for 1930—Accurate data for 1929 not available—for all other counties, 1929.

**Covers districts under supervision of county office.

school attendance situation in that state. Such a claim, apparently, is justified when one examines the figures in Chart III of the Maryland State Report previously referred to. However, they do represent the situation in representative Maryland counties from very many other points of view and no explanation has been advanced for the fact that, with the exception noted above, all of the counties used in this study rank low among the total in the state in regard to these data.

It is evident that in spite of the small district unit, lack of adequate free transportation facilities, the presumed improper location of high schools and the distances travelled, as revealed in an earlier part of this study, rather high percentages of elementary school graduates in the selected Pennsylvania counties are making praiseworthy efforts to secure secondary school training, as represented by data for 1929-1930, and as compared with the figures for the selected Maryland counties.

Obviously, similar data should be secured for a rather long series of years and an investigation ought to be made of persistence in high school. It does seem in this connection, however, that many parents may not be able to continue to pay personally such transportation costs as were indicated in the Chester County study. Only some objective determination can properly answer this question.

Possible Cost Eliminations for the Pennsylvania Counties under the County Unit Plan

It has long been recognized that under the present township and borough organization for school purposes which now exists in Pennsylvania there are a number of instances in which economies might be effected by some scheme which would enlarge the administrative areas and reduce the number of local offices. Each board of school directors in the state has its own secretary and its own treasurer who are paid salaries at the discretion of the board,[17] with the exception of certain situations where it arranges to have a banking institution act as treasurer, often without cost to the district. Then, too, each

[17] School Laws of Pennsylvania, Section 403.

separate district has its own auditors and tax collectors who are elected by popular vote. Their compensation is fixed by law in districts of the third and fourth classes at five dollars ($5.00) per day and in districts of the second class, the compensation is fixed by the school board.[18] In first class districts, the school controller is the auditing officer and receives an annual salary of $4000.[19] The compensation of the tax collector in all classes of districts is fixed by the school board.[20]

It is quite natural, therefore, that where the compensation is discretionary in so many cases, the amounts paid should vary widely. In many instances the school treasurers are paid on a percentage basis, receiving sums quite out of proportion to the amount of work required by the position. In many other districts, however, annual salaries are paid, with great variations in each county and throughout the state.

Tax collectors also are usually paid on a percentage basis. This in many districts means that amounts are being expended for services which, judging from the experiences of the Maryland counties, can be done at much lower rates. The amounts paid for the collection of taxes in Pennsylvania have long been a target for those who are seeking the elimination of wastes in education.[21] This item, then, in addition to the others already suggested must be given strong consideration as a source of economy in any proposed reorganization plan.

With the lay administration of schools as it exists in Pennsylvania, it is natural that the financing of education should in many cases lack professional oversight and leadership. The School Code [22]provides that a budget shall be made by each board of school directors in districts of the second, third and fourth classes previous to the levying of the rate of taxation. Too often, however, this is not done at all or is done in such an unscientific way as to be of little value. Too often, the attempt is to "try to get along without raising the taxes." The result

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[18]Ibid., Section 2623.
[19]Ibid., Sections 2211, 2617.
[20]Ibid., Sections 528, 554.
[21]"Educational Surveys", pp. 47-54, Report of the Committees appointed by Gifford Pinchot, Governor, 1925.
[22]Pennsylvania School Laws, Section 563.

is frequently noticed in the large numbers of cases where districts are forced to borrow money for temporary purposes, usually current expenses, lagging behind in their method of financing the schools, and paying out money for interest which could have been very largely avoided under professional budgeting and planning.

In discussing the subject of "Waste in Education", Mort refers to the matter in the following words:[23]

> "All but a few hundred of these local units (Pennsylvania districts) are now so small that they are unable to employ trained local leadership answerable to themselves, and even if they were able to employ trained local leadership to express their demands for education in terms of an educational organization, their sovereignty covers so small a territory that it would be impossible for them to set up a satisfactory organization."

On the other hand, professional administration of financial affairs is the rule in Maryland. As previously stated, the county superintendent of schools is the secretary, treasurer and executive officer of the board of education and as such, his leadership in financial matters is outstanding.

It is maintained, therefore, that the figures given under Column 6 of Table LX represent very largely a wastage, which under professional budgeting and financing should not occur. There is plenty of evidence in the Maryland counties that it need not.[24] But three counties in the entire state showed any appreciable amount for "Interest on Short Term Loans" for 1929-1930 and in most of these cases the underlying cause seems to have been the necessity for financing building construction out of current funds because a bond issue for this purpose had not been secured.

Exceptions were noted in 1930-1931 when low receipts from state taxes were responsible for deficits in state appropriations, making it necessary for a number of the counties to borrow money. This situation has since been largely remedied,

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[23]Mort, Paul R., "16th Annual Schoolmen's Week Proceedings", p. 188, University of Pennsylvania, 1929.

[24]1930 Report, Maryland State Department of Education, Table XXVII.

however, by making certain other state funds available for public school use. Interviews with the county superintendents in the counties used in this study have substantiated the fact that in ordinary times borrowing for temporary purposes was practically unknown.

Table LX indicates certain gross economies which could be effected should the county unit of administration be adopted in Pennsylvania. Quite obviously, these are not net savings because accounts must be audited and taxes must be collected, necessitating certain expenditures chargeable to the public school funds. In like manner, if the county superintendent is treasurer and secretary of the county board, certain additions to the clerical force now employed in the office of the Pennsylvania county superintendents will be necessary. The costs for these services in the Maryland counties have been ascertained and proper allowances will be made in the determination of the data presented in the following section.

It may be safely presumed, of course, that there are also other sources of economy, which are not possible of accurate objective measurement. The enforcement of compulsory attendance is an example of such. It is impossible because of the method of accounting, to separate the costs for this service in Pennsylvania, which in many cases is very poorly done in the local district. County enforcement would probably be less costly and certainly should be more efficient because of its more impersonal character.

McClellan[25] also suggests certain savings in the laying out and operating of transportation routes, standardization of equipment and the hiring of drivers on a county basis.

Writing upon this matter recently, Superintendent Day of Calvert County said:[26]

> "Other costs of education may be greatly reduced through standardization of materials, collective buying, wise and economical high

[25]McClellan, E. E., "Possible Economies in a County Administration of Schools", Master's Thesis, Ohio State University, 1930, p. 111.

[26]Shaw, Robert C., "Are We Ready to Push the County Unit System of Administration in Pennsylvania?" Reprint of Address delivered before the Pennsylvania State Education Association, December, 1929, and reprinted by the Pennsylvania Department of Public Instruction.

TABLE LX

POSSIBLE COST ELIMINATIONS IN THE SELECTED PENNSYLVANIA COUNTIES SHOULD COUNTY UNIT CONTROL BE ADOPTED

1 Counties	2 Salaries of secretaries	3 Salaries of treasurers	4 Costs of auditors' services	5 Costs of tax collection	6 Interest on temporary loans	7 Totals
1. Adams	$3,334.42	$3,362.36	$451.55	$9,202.17	$4,111.77	$20,462.27
2. Bradford	6,656.04	5,345.71	858.50	20,113.70	4,272.44	37,246.39
3. Chester	13,901.40	8,208.95	1,881.66	47,899.51	10,357.22	82,248.74
4. Clearfield	8,821.18	3,410.52	1,212.66	27,346.67	7,473.84	48,264.87
5. Crawford	9,778.13	3,387.85	1,142.95	19,033.43	4,098.27	37,440.63
6. Greene	6,479.74	3,458.95	907.00	14,480.19	14,819.31	40,145.19
7. Pike	1,576.66	1,467.72	227.00	2,923.17	252.00	6,446.55
Totals	$50,547.57	$28,642.06	$6,681.32	$140,998.84	$45,384.85	$272,254.64

> and elementary school consolidation, and last but not least, through the elimination of waste in public expenditures incidental to a locally controlled situation subject to continual threat by local politics and politicians."

Necessary County Tax Rates Should Pennsylvania Adopt the Maryland Plan of Financing Education upon a County Basis

A significant question which this investigation should answer is, "What will be the cost in terms of the rate of taxation of the present educational program in the counties studied in Pennsylvania should county unit control be adopted?" It would be desirable, of course, to ascertain the probable costs of a state minimum program that would obtain equality of opportunity over a reasonably long period of years. This, however, is impossible until the Commonwealth sets up a mandated minimum program, attainable objectives and new methods of reimbursements.

In calculating the cost of the present program on the county unit basis as above suggested the procedure will be described for one county and the costs for the other counties of the group presented in tabular form. This data is shown for Chester County on the basis of 1929-1930 costs in Table LXI.

In the procedure under discussion, it has been found necessary to deduct the non-resident high school tuition paid within the county in order to determine the net current expense. Otherwise this item would be counted twice. Short term loans paid during the year are deducted from debt service because they do not represent a constant item and will be taken care of in another way. Amounts paid for redemption of bonds from current funds are also deducted because they represent in the large an unprofessional method of financing which should not occur under the county unit plan where professional budgeting is the rule and because it usually is an emergency method only. These payments should come from a special fund set up for the purpose.

From capital outlay must be deducted expenditures from bond issues, for these again are not a constant item and should

TABLE LXI

TAXATION NECESSARY TO SUPPORT THE PRESENT EDUCATIONAL PROGRAM IN CHESTER COUNTY, PA., ON THE COUNTY UNIT BASIS

Current Expenses	$1,688,507.73
Less non-resident tuition paid in county	170,755.00
Net Current Expense	1,517,752.73
Debt Service (Less short term loans paid and amounts paid for redemption of bonds from current funds)	362,033.82
Capital Outlay (Less expenditures from bond issues)	59,153.10
	1,938,939.65
Less State appropriations	426,213.83
	1,512,725.82
Less balance July 7, 1930	144,074.50
	1,368,651.32
Less possible savings (Table LX)	82,248.74
	1,286,402.58
Costs to be added for County Unit Administration—Tax collecting, $12,000; Auditing, $725.00; Additional Clerical Service, $7500	20,225.00
To be raised by taxation	1,306,627.58
Per capita tax—62,639 adults at $4.25	266,215.75
To be raised by property tax	$1,040,411.83

Assessed valuation of county $105,479,329

$$\frac{\$1,040,411.83}{\$105,479,239} = 9.9 \text{ mills necessary County Tax (1) (2)}$$

(1) An additional tax of 2.9 mills for one year will liquidate the present outstanding temporary indebtedness of $307,427,530.

(2) After the first year, of course, the balance of $144,074.50 would not be available. Hence, an additional tax of approximately 1.4 mills would be required, should the same ratio between valuations and expenditures be maintained.

be taken care of as they usually are in Maryland, by a special tax for that purpose. Such figures are set up in the complete data presented. Further deductions need to be made on account of state appropriations, balances outstanding, which, under the present system, for the whole county are frequently quite large, and for possible cost eliminations which will be effected by county unit control. Then, as has been previously mentioned, certain costs must be added for tax collection on the county basis, for the auditing of accounts and for the additional clerical service required for the county superintendent's office. These have been determined in each case by averages of costs of the services in similar counties in Maryland. The amounts allowed are all quite liberal.

This procedure will thus produce the net amount to be raised by taxation. Using the present approximate median per capita tax for each county and deducting the amount thus raised, the necessary county tax on the taxable basis for the year may easily be obtained. Proper provision should then be made in each case for liquidating the outstanding temporary indebtedness. Of course, compensation will need to be made after the first year for the amounts deducted for balances outstanding at the end of 1929-1930. Additional amounts needed for capital outlay will also need to be provided for by additional taxation.

The effect of including the third class districts in the plan of county organization for taxation may be secured by computing the costs when all districts are included or when fourth class districts only form the unit. If a county unit were formed it would probably be exceedingly difficult to include any but the fourth class districts (those with 5000 or less population). At least, opinion is divided upon the desirability of the plan.

In Table LXII are presented data showing the tax rates that would be necessary to support the present educational program upon a uniform county tax in each of the selected Pennsylvania counties using the procedure described. The figures are significant when considered in connection with the present variations in the burden of taxation as noted in Tables

TABLE LXII

SHOWING TAX RATES NECESSARY TO SUPPORT THE PRESENT EDUCATIONAL PROGRAM ON A COUNTY TAX BASIS* IN THE SELECTED PENNSYLVANIA COUNTIES

Counties	If all Districts** are considered		If 4th Class Districts only are considered		Present median school tax rate in mills	Tax rate for one year to remove temporary loans outstanding	
	School tax rate in mills	Per capita tax	School tax rate in mills	Per capita tax		All districts	4th class districts only
1. Adams	14.9	$3.25	16.6	$3.25	14.81	3.9	4.62
2. Bradford	18.8	3.50	15.6	3.50	19.14	5.3	5.3
3. Chester	9.9	4.25	10.9	4.25	13.89	2.9	3.5
4. Clearfield	26.8	4.25	21.8	4.25	30.25	5.7	5.8
5. Crawford	16.4	3.50	17.5	3.50	17.29	1.6	2.7
6. Greene	8.01	2.50	7.2	2.50	10.55	4.0	3.9
7. Pike	7.9	2.25	7.9	2.25	13.89	.7	.7

*Data of 1929-1930.

**Classification of Districts based on 1930 Census.

I to VII in the Appendix. Equalization of costs would be secured in each county to the extent that the tax rate for all persons would be brought to the figure indicated. In each case these are remarkably close to the median rates now existing.

In order to make the saving indicated by "interest on temporary indebtedness" it will be necessary to provide for the first year a tax rate sufficient to pay off the temporary indebtedness outstanding. Then it is obvious that after the first year there would be no large balances such as exist now when the totals of all of the small districts in each county are considered. Consequently, after that time, the tax rates required would be raised by the amounts indicated in Table LXIII.

The effect upon the tax rates of including or not including the third class districts in the county financing plan is also shown in Table LXII. This apparently is not the same in

TABLE LXIII

SHOWING ADDITIONAL MILLAGES NECESSARY AFTER FIRST YEAR FOR ADDITION TO TAX RATES SHOWN IN TABLE LXII TO PRODUCE AMOUNTS EQUIVALENT TO BALANCES OUTSTANDING FOR 1929-1930

Counties	Millage to be added if entire county is included in unit	Millage to be added if fourth class districts only are included
1. Adams	2.0	2.0
2. Bradford	4.5	4.1
3. Chester	1.4	1.9
4. Clearfield	3.7	5.1
5. Crawford	3.6	3.8
6. Greene	1.8	2.1
7. Pike	3.1	3.1

each county. In Adams, Chester and Crawford the rate of taxation will be decreased if the entire county is included in the organization. In Bradford, Clearfield and Greene, the opposite is the case. In Pike County, no third class districts exist. It is apparent, however, that there are reasons other than

finance to consider when thinking upon this question. It is possible, for example that there would be considerable reluctance upon the part of these larger districts themselves to enter into any county organization.

Curtis[27] recently attempted to study this question in reference to North Carolina by securing the opinions of experts and of Educational Boards and Foundations. From Dr. Cubberly he received the following significant statement:

> "I see no reason for changing the form of organization as laid down in my School Code for the State of Osceola (My "State and County Reorganization": Macmillan Co.). There I provided for separate county unit and city organization, for all educational purposes. When you come to the matter of taxation, then they should be united to the extent that the county tax should be levied on all property of county, city and rural alike, and then divided between county school districts and city school districts in some equitable manner as provided for locally. While in counties having only small cities in them, it might at times work out well, to have a unified control, and there is some logical argument in favor of this, yet in practice it would be unwise in nine cases out of ten, and in many cases it would be disastrous for the city schools to be so included."

In view of the data here presented and in the light of tradition long established it seems that these principles as here reproduced, are, in general, applicable to the State of Pennsylvania.

Summary

This chapter has presented briefly evidence to show from earlier studies that the one-teacher schools are outgrown institutions both academically and socially and that during the period of 1920-1926 they have decreased in the country as a whole at the rate of approximately 4,600 annually. Consolidated or centralized schools are replacing them and it is to be noted that there are statutory mandates upon district school boards in Pennsylvania and upon county boards of education in Maryland to establish consolidated schools where feasible

[27]Curtis, K. R., "The County Unit and the City System", American School Board Journal, Vol. 70, pp. 135-136, February, 1925.

in place of one-teacher schools. There is, however, no definition of the consolidated school common to both states.

As a measure of progress in the direction of consolidation, data are presented indicating that the Maryland counties, when schools for both races are considered, have shown a rate of reduction in the number of one-teacher schools between 1920 and 1929, inclusive, of 34.8 per cent. When the situation for white schools only is observed, the rate is 37.5 per cent. Corresponding figures for the Pennsylvania counties are 32.9 per cent. In both cases, four counties in Maryland show rates of reduction higher than their similar counties in Pennsylvania. The converse is true for three counties of the group, Pike showing by far the highest rate of reduction in both states. In the light of these facts and of the small differences shown in favor of the Maryland group, it is extremely doubtful if there is any soundness in ascribing to the county unit organization any decided stimulation toward removing one-teacher schools faster than is possible under the Pennsylvania system. This is contrary to opinion which has frequently been expressed but the evidence of this study indicates but a slight advantage in favor of the Maryland situation. The question of professional leadership, both on a state basis and locally, is paramount.

Data have been presented in the chapter showing the number and per cent of elementary school graduates entering higher institutions for 1929 except in two counties in Pennsylvania where it was necessary to use 1930 data. The figures indicate that while the percentages are approximately the same for Clearfield and Allegany Counties, in all of the other cases studied, larger percentages of elementary school graduates entered higher schools in the Pennsylvania counties than in the similar counties in Maryland. Because of the racial and social conditions prevailing and the secondary school facilities available to colored children, data for white pupils only were studied in Maryland, except in Baltimore County. The results of this study, therefore, do not indicate that the adoption of the county unit in Pennsylvania would insure a much larger percentage of children entering high school. The figures for the counties studied are now quite high. The investigation

makes no objective reference to persistence in high school. It seems possible, however, that with the presumed better location of high schools under the county unit plan[28] and with the results of a free transportation program as is now in operation in certain Maryland counties and which is a clearly defined state policy, children might be able to stay in high school longer than is likely to be possible when they must travel such long distances and entirely at parental expense.[29]

Certain cost eliminations would be possible in Pennsylvania were the Maryland plan of organization to be adopted. These would be largely the result of the elimination of the services of local school board secretaries, treasurers, auditors and tax collectors and the substitution for them of services carried on on a county basis. Other savings would undoubtedly result from professional budgeting and the consequent elimination or large reduction of money expended for interest upon funds borrowed for temporary purposes. These amounts in gross form for the counties studied are, for each item; salaries of secretaries $50,547.57, salaries of treasurers $28,642.06, costs of auditors' services $6,681.32, costs of tax collection $140,998.84, interest on temporary loans $45,384.85, and making a grand total of $272,254.64.

For most of these items there must be compensating amounts added for the costs of similar services performed upon a county basis. These have been calculated from the average costs of such services in the Maryland counties studied. The costs of tax collection in the counties from which information was secured varied as follows: Baltimore, $4,500 (salary of county treasurer); Washington, $9.00 per $1,000; Calvert, 3 per cent of taxes collected and Allegany approximately 1.1 per cent. The costs of clerical, stenographic and auditing services have been secured from each Maryland county in the study and liberal additions made in calculating the costs of financing the present educational program in the Pennsylvania counties upon a county unit basis. The tax rates thus ascertained and

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[28]Deffenbaugh, W. S. "11th Annual Schoolmen's Week Proceedings, 1924." p. 27.

[29]See Chapter V of this study.

as illustrated by the procedure given for Chester County, represent figures remarkably close to present medians. The effect of including districts with a population of more than 5,000 varies, showing an increased rate if they are included, in Bradford, Clearfield and Greene Counties, and a decreased figure in Adams, Chester and Crawford. The significant effect to note, however, is the fact that the costs of supporting education would be equalized to the extent indicated by the figures thus ascertained and the variations noted in the rates now existing, with limitations, of course, upon inequalities of assessments.

CHAPTER IX

FINDINGS AND CONCLUSIONS

In this investigation of the administrative, financial and supervisory aspects of the units of administration in Pennsylvania and Maryland, the following findings are justified:

1. In spite of the fact that in its early history there have been various attempts at control by both district and county, Maryland has been traditionally a county unit state. In Pennsylvania, however, the local governmental unit, city, township or borough, has been the school district since the beginning of the free public school system in 1834. In January, 1931, there were 2,587 school districts in Pennsylvania, whereas in Maryland there were but twenty three county units and one independent district, Baltimore City. (Chapter III.)

2. The State Department of Public Instruction in Pennsylvania and the State Department of Education in Maryland are charged with the administration of the School Laws. In each commonwealth the state superintendent is the executive officer of the Department. (Chapter III.)

3. The State Council of Education in Pennsylvania and the State Board of Education in Maryland occupy important places in the administration of public education in each state. Their powers are very similar, except that in Maryland the State Board of Education elects the state superintendent for a four-year term. In Pennsylvania he is appointed by the governor for four years. (Chapter III.)

4. The county superintendent in Pennsylvania is the directing administrative and supervisory officer, acting as the agent of the state in a somewhat limited range of powers and duties. (Chapter III.)

5. In each county in Maryland the schools are administered by a county board of education with wide powers, similar to those of local school boards in Pennsylvania. The county board elects the county superintendent of schools, who acts as its secretary, treasurer and executive officer. (Chapter III.)

6. The Pennsylvania county superintendent has an advisory relationship in most of those functions which the Maryland superintendent is empowered by law to carry out. (Chapter III.)

7. Union districts and joint schools are provided for in Pennsylvania in the attempt to secure a larger administrative area. While there are but two union districts in the state at present, joint schools have grown from seven in 1920-1921 to 72 in 1929-1930. (Chapter III.)

8. The local school district in Maryland is primarily for census purposes. Provision is made for the appointment, by the county board, of local trustees with very limited powers. (Chapter III.)

9. Taxes are levied by the district school boards in Pennsylvania and by the county commissioners in Maryland. While a definite statutory limit is set for maximum tax rates in fourth class districts in Pennsylvania, there is no practical limit in the latter state. (Chapter III.)

10. The borrowing capacity of districts in Pennsylvania is limited to two per cent of the assessed valuation without the consent of the electors and to seven per cent with such consent. Maryland sets no legal limitations upon bonded indebtedness for school purposes but bond issues must be authorized by the state legislature. A referendum may or may not be required. (Chapter III.)

11. Both local school boards in Pennsylvania and county boards in Maryland have authority to transport pupils to schools. State reimbursement is provided for under certain conditions in Pennsylvania, while in Maryland transportation expenses may be used in calculating the cost of the minimum

program as it pertains to the distribution of the Equalization Fund. (Chapter III.)

12. General supervision in Pennsylvania is provided for through the county superintendent and his assistants, district superintendents, their associates and assistants, and other local supervisors. In Maryland, practically all supervision except in the separate school district of Baltimore City is provided by the county office through the county superintendents, a few assistant superintendents and a large number of supervising and helping teachers. A very recent tendency may be observed in Baltimore County to delegate definite supervisory functions to the principals of some of the larger schools. (Chapter III.)

13. Pennsylvania school districts not maintaining a high school or a complete high school are required to pay the costs of tuition for the attendance of pupils, resident within that district, at a high school in another district for a whole or part of the course, as the case may be. (Chapter III.)

Because of the county operation of all parts of the educational system there is no similar situation within the counties in Maryland. Minor amounts are spent for non-resident tuition between counties but legal provision is made for the joint operation of schools at or near the county lines. (Chapter III.)

14. Measuring ability to support education by the application of Clark's formula, which seems to be the most satisfactory one at present, in so far as including the largest number of factors is concerned, very wide ranges are noted in all of the Pennsylvania counties. Using the ability of the county as a whole in each case as the base, the following ranges of indices exist as shown in Table LXIV. (Chapter IV.)

There is also a wide variation of ability among the Pennsylvania counties, ranging from 3.38 in Clearfield to 17.00 in Pike County. Variations between the selected Maryland counties range from 2.97 in Calvert to 11.66 in Baltimore County. (Chapter IV.)

TABLE LXIV

RANGES OF INDICES OF ABILITY OF THE DISTRICTS IN THE SELECTED PENNSYLVANIA COUNTIES TO SUPPORT EDUCATION, BASED UPON THE APPLICATION OF CLARK'S FORMULA AND THE ABILITY OF THE COUNTY AS A WHOLE AS 1.00

1 Counties	2 Lowest index of any district	3 Highest index of any district	4 Difference
Adams	.39	4.63	4.24
Bradford	.17	3.20	3.03
Chester	.32	3.41	3.09
Clearfield	.21	3.40	3.19
Crawford	.21	2.98	2.77
Greene	.36	4.00	3.64
Pike	.54	2.96	2.42

15. An adequate measure of effort is exceedingly difficult to secure. Effort does, however, involve the element of local volition in raising money. When the ratio of receipts from local taxation to expenditures for current expense are considered, there is a somewhat higher average figure, 92.5 per cent, noted for the Maryland group than for Pennsylvania, 76.3 per cent.

A study of the relationships between ability, as measured by Clark's formula, and effort, as described above, indicates a slightly higher correlation in the Maryland counties than in those of Pennsylvania.

An investigation of tax rates as a measure of effort in Pennsylvania reveals that a rather large number of districts in the selected counties are levying the maximum rate permitted by law. Especially is this true in Clearfield County.

Charts showing the relations between the abilities of the counties, as just indicated, and effort, as measured in the Pennsylvania counties by the total corrected median school tax rates, and in the Maryland counties by the county rates, cal-

culated from the total school budgets and the assessable basis taxable at the full rate for county purposes, indicate a somewhat higher correlation in the latter case. (Chapter IV.)

16. Variation in need within the Pennsylvania counties, when all measures are reduced to teacher units, is dependent very largely upon the size of the district. (Chapter IV.)

17. The average percentage of 1929-1930 expenditures for education devoted to the major items of current expense, debt service and capital outlay, in the Pennsylvania counties was 5.9 higher for current expense, 5.5 higher for debt service and 11.4 lower for capital outlay than in Maryland.

Further examination into the distribution of the minor items of current expense shows, on the average, that the Pennsylvania group spent in 1929-1930 more than double the percentage of funds of Maryland for the purposes of general control.

While Pennsylvania showed a 3.3 per cent higher ratio of expenses devoted to fixed charges, there was practically no difference in the percentages of expenditures devoted to auxiliary agencies, operation and maintenance. (Chapter V.)

18. An analysis of the expenditures for non-resident high school tuition for each district in the Pennsylvania counties indicate unusually wide ranges in the burden of this cost, calculated in terms of equivalent millages necessary to raise the required funds. Median percentages which this millage bore to the total millage levied, varied from 12.5 per cent in Pike County to 34.16 per cent in Chester County. In each of the selected Pennsylvania counties, except Greene and Pike, there were districts where more than 70 per cent of the proceeds of the tax levy for school purposes went to pay this item of expenditure.

19. Wide variations in transportation costs on a county basis, a per-pupil-per-year and a per-pupil-per-day basis are found within each of the Pennsylvania counties studied. (Chapter V.)

20. A detailed study was made in the fall of 1930 of the transportation costs of 1,218 non-resident high school children in Chester County. The median distance travelled was 4.22 miles for the one-way distance. The first and third quartile points were 2.84 and 6.96 miles respectively, with a range of .25 to 20 miles.

While the greatest number of children used private motor cars or busses, 200 pupils walked to high school daily, many of them quite long distances.

The median weekly cost of this transportation was found to be $1.049, with quartile points at $.373 and $1.608 respectively, and a range from 0 to $10.00. (Chapter V.)

21. Beginning about 1835, there appeared the first indications of the beginnings of the office of county superintendent. The position has developed into one with unusually large opportunities and possibilities for leadership.

In 1911, the Pennsylvania county superintendents were given professional aid in the form of assistant superintendents with duties which have come to be very largely of a supervisory nature. While a few of the Maryland counties employ assistant superintendents, the actual work of field supervision is in the hands of the supervising and helping teachers, who, it happens, are almost entirely women. (Chapter VI.)

22. While supervising principals are provided for locally in many of the larger districts in Pennsylvania, the county superintendent is charged with directing the supervision and with the responsibility for it in the entire county, with the exception of those third class districts which employ a district superintendent of their own. The function of the county superintendent in both states as regards supervision, is largely one of direction. Only very infrequently does he assume the responsibility for the immediate supervision of a definite number of teachers. (Chapter VI.)

23. The assignment of teachers for supervisory purposes to the Pennsylvania assistant superintendents ranged in 1929-

1930 from 120 to 324 each, while for the Maryland supervisors, the range was from 29 to 160 for the white elementary schools. For colored schools the lowest number assigned to one supervisor was thirteen and the highest thirty four. High school supervision in Maryland is very largely in the hands of supervisors from the State Department of Education. (Chapter VI.)

24. Two of the seven Maryland counties studied, employed special county music supervisors while there were no similar positions in the Pennsylvania group. There were no county supervisors of art in the counties studied in either state. In general, these subjects are departmentalized in the larger schools of Maryland while in the smaller schools they are taught by the classroom teachers. This seems to be a state policy in this case, while in Pennsylvania, the employment of special teachers, or supervisors, by all districts is encouraged. (Chapter VI.)

25. The Maryland county superintendents are a much more highly trained group professionally than their Pennsylvania colleagues. The same situation is evident to a marked degree in the case of the assistant superintendents and the supervising and helping teachers in their respective counties. (Chapter VI.)

26. There is a wider range of salaries paid to the county superintendents of the selected Maryland counties than in those of the Pennsylvania group. The average salary paid in 1929-1930 in the first case was $5,151.43 and in the latter $4,271.43. In the case of the other supervisors, the Maryland officials, while having higher qualifications, are much more poorly paid. (Chapter VI.)

27. In 1929-1930 in the selected group, Maryland spent $1.99 per pupil belonging for county supervision and administration and Pennsylvania $1.16. There was also a much wider range of costs on this basis in the Pennsylvania counties than in those studied in Maryland. (Chapter VI.)

28. In Pennsylvania, the percentage of funds received from the state for school purposes has increased from 9.4 in 1917-1918 to 16.9 per cent in 1927-1928. In Maryland, during the same period the percentage decreased from 31.3 to 18.2 per cent. (Chapter VII.)

29. The assessment of property in Pennsylvania is distinctly a local problem, with conditions being present which almost preclude an equitable assessment. In Maryland, the supervision and direction of the State Tax Commission has brought about a situation where assessments appear to be more nearly equalized, and, in general, rather close to actual values. (Chapter VII.)

30. Each state makes use of the general property tax. Maryland, however, has an additional tax upon this assessment for state purposes. (Chapter VII.)

31. Tax rates levied for local governmental purposes vary tremendously in each county studied in Pennsylvania. School rates, however, vary far more widely within each county than do those for other local purposes. In each county the range of the proportionate burden of school taxation to total local taxation also varied widely. In no case was the difference between the ratio of the lowest and the highest district in any county less than 26.7. (Chapter VII.)

32. The Maryland counties studied have shown an average and total rate of reduction of one-teacher schools between 1920-1929 of 34.8 per cent. Corresponding figures for the Pennsylvania counties are 32.9 per cent. If the white schools only are considered in Maryland the rate is 37.5 per cent.

33. With one exception, viz., comparative figures for Clearfield County, Pa., and for Allegany County, Md., the Pennsylvania counties studied showed higher percentages of elementary school graduates continuing higher education in 1929 and, in certain cases, in 1930 than did their similar Maryland counties.

34. Gross cost eliminations made possible by the county administration and financing of education would be effected in (1) salaries of school board secretaries, (2) the salaries of treasurers, (3) the cost of auditors' services, (4) the cost of tax collection, and (5) interest on temporary loans due to lack of professional oversight of finance. For the seven Pennsylvania counties, these totalled for 1929-1930 the amount of $272,254.64.

Conclusions

From the complete data and findings of the investigation, the following conclusions may be drawn:

1. The only effective method available in Pennsylvania for providing a large area for equalizing school support, i. e., the union district, has almost entirely failed of its purpose in the state as a whole, as judged by the number of such districts which have been formed. While the joint school provides for an enlarged basis of support it does not insure *equalization* of support.

2. The Maryland plan of county unit administration and support would bring the widely varying abilities of the separate districts in each county in Pennsylvania to that of the county as a whole, thus making it possible to equalize the burden of the support of education.

3. Under the county unit plan, Maryland is able to finance capital outlay directly from taxation to an appreciable extent. This plan, if adopted in Pennsylvania would, enable the county board of education, if it seemed advisable, to construct buildings in sections where, either because of a lack of resources or through the failure of a local district to authorize a bond issue, educational advantages had been denied the children.

4. The Maryland plan of county financing permits a larger percentage of current expense funds to be devoted to instructional purposes than does the district system in Pennsylvania. While the effect of the county unit plan in Pennsylvania would be to release a large proportion of funds now spent on general control, one cannot say definitely that this amount would be devoted to instruction. It is probable, however, that such would be the case.

5. Because of the county operation of high schools, the Maryland county unit plan of administration, if adopted by Pennsylvania, would eliminate the gross inequalities of cost now represented by expenditures for non-resident high school tuition. It probably would also lessen inequalities in this respect between counties.

6. The Maryland plan of county unit organization would tend to equalize transportation costs within each county in Pennsylvania and would probably make possible a more economical type of transportation service.

7. The plan which Maryland has adopted, of working toward the attainment of free transportation to high school, would be highly desirable for Pennsylvania, but is practically impossible of accomplishment under the present district system. Such a plan when attained under the county unit would eliminate the unequal and sometimes excessive costs which parents must frequently pay now in order to secure for their children the advantages of the secondary school.

8. The Maryland plan of county supervision has the possibilities of much more effective service for Pennsylvania than can be expected under the present plan.

9. The enlarged responsibilities of the county superintendency under the county unit organization seem to require and to secure a highly trained individual for that office. The effect of the county unit in Pennsylvania in this respect, however, would be highly problematical. There is the possibility that many of those now in office would be stimulated to seek further training for greater responsibilities.

10. The Maryland policy as regards the teaching and supervision of music and art precludes any close comparisons between that state and Pennsylvania. No supervisor of either of these subjects may be employed on a county basis in Pennsylvania, unless he should take the place of an allotted assistant superintendent. This procedure would, of course, lessen the possibilities for more efficient general supervision. The teaching and supervision of the special subjects in Pennsylvania, even on the basis of joint employment of these persons by several districts, so as to reach all of the children, is practically impossible of attainment, because of the large numbers of small districts and the difficulty of persuading local school boards of the value of this type of work. To this end, the Pennsylvania policy coupled with the county unit organization should make for effective service.

11. The Maryland system of *assessing* property, which is an inherent part of the county unit plan, would undoubtedly be highly desirable for Pennsylvania. It would put this important phase of government on a much more scientific basis and relieve, to a large extent, present existing inequalities of educational support in the state.

12. In view of the evidence and opinion, both lay and expert, against the general property tax as a major source of revenue for education, the Maryland plan offers no advantages to that used in Pennsylvania, except that a wider basis is found beyond personal property for taxation in that state.

13. It is evident that the Maryland plan of uniform county taxation, coupled with a sound system of assessment, would remove most of the inequalities of school support within the Pennsylvania counties but would do little toward equalizing variations among the different counties unless an adequate and wisely administered equalization fund were established, as is now functioning in Maryland.

14. The county, as the unit for school purposes in Pennsylvania, would remove only a part of the varying burden of

taxation. County financing for roads and other governmental purposes is also necessary to accomplish this end. In this respect, the Maryland plan is decidedly superior to that of Pennsylvania.

15. There is no convincing evidence to indicate that the reduction of one-teacher schools is more rapid due to the county unit plan in Maryland than under the district system in Pennsylvania.

16. Data for one year do not indicate that the adoption of the county unit plan would insure a much larger, if any larger, percentage of elementary school graduates entering high school in Pennsylvania.

17. The adoption of the county unit plan would make possible large cost eliminations and savings due to the performance on a county basis of the major functions of "general control", and of savings in interest, due to professional budgeting.

18. With consideration given to amounts which must be added for the performance of the above suggested functions on a county basis, the tax rates upon present assessments, necessary to support the present educational program are remarkably close to the present median school tax rates. The effect of including the third class districts in the unit seems to vary in each county.

Of course, the present program would not be the one that would be set up as ultimate under the county unit plan. As equality of opportunity would become more nearly a reality, more money would be required. Fundamental to any reorganization, of course, is a revision of the assessment and taxation system now in use in Pennsylvania.

Finally, the evidence of this investigation indicates that in the following financial aspects of education studied, viz., the distribution of expenditures for the various divisions of the budget, the non-resident high school tuition situation, the economy of the administration of transportation service and

the equalization of the costs thereof and the general equalization of the weight of taxation, the Maryland plan of county administration is superior to the township, borough and city plan in Pennsylvania. From the county supervisory point of view, there is also distinct evidence of the superiority of the Maryland plan. In the bases used for taxation, there are apparent no outstanding advantages for either state, except that Maryland uses general property for state school taxation, an extension of an already existing evil.

As a stimulation toward the more rapid closing of one-teacher schools, there seems to be nothing to clearly and definitely indicate that the Maryland county unit plan of administration is superior to the Pennsylvania plan. In the matter of entrance upon high school opportunities by graduates of the elementary school, the Pennsylvania counties studied seem to show better results, while in general financial administration, certain rather large savings make the county unit plan of Maryland distinctly superior in this respect to the township, borough and city system of Pennsylvania.

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APPENDIX

TABLE I

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF ADAMS COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

L—Levied C—Corrected

1 Districts	2 Assessed valuations real estate and personal property	3 Rates of assessment in per cent	4 Corrected valuations	5 School tax rates in mills		6 Township or boro tax rates in mills		7 County tax rates in mills		8 Total tax rates in mills		9 Ratios of school tax rates to total rates Col. 5 ÷ Col. 8	10 Per capita tax in dollars
				L	C	L	C	L	C	L	C		
Abbottstown Boro....	$179,672	60	$299,453	11	6.6	6	3.6	9	5.4	26	15.6	42.3	3.00
Arendtsville Boro.....	156,180	60	260,300	20	12	16	9.6	9	5.4	45	27	44.4	4.00
Bendersville Boro....	111,477	60	185,795	20	12	20	12	9	5.4	49	29.4	40.9	3.50
Berwick.....	276,881	72	384,557	15	10.8	15	10.8	9	6.5	39	28.1	38.5	4.00
Biglerville Boro.....	328,775	68	483,492	19	12.9	11	7.5	9	6.1	39	26.5	48.7	3.50
Butler.....	538,312	60	897,187	16	9.6	18	10.8	9	5.4	43	25.8	37.2	4.50
Conewago, Ind.....	51,850	60	86,416	11	6.6	10	6	9	5.4	30	18.0	36.6	3.50
Cumberland.....	665,573	62	1,073,505	15	9.3	10	6.2	9	5.6	34	21.1	44.1	1.00
Conewago.....	811,873	60	1,353,121	8	4.8	10	6	9	5.4	27	16.2	29.6	3.00
E. Berlin Boro.....	373,825	57	655,833	11	6.3	13.5	7.7	9	5.1	33.5	19.1	32.8	3.00
Fairfield Boro.....	150,883	60	251,471	17	10.2	7	4.2	9	5.4	33	19.8	51.5	5.00
Franklin.....	1,040,190	64	1,625,297	13	8.3	10	6.4	9	5.8	32	20.5	40.6	2.00
Freedom.....	219,691	60	366,151	15	9	10	6	9	5.4	34	20.4	44.1	2.00
Germany.....	445,939	57	782,349	10	5.7	10	5.7	9	5.1	29	16.5	34.5	2.00
Gettysburg Boro.....	2,604,200	62	4,200,322	18	11.2	17	10.5	9	5.6	44	27.3	41.0	3.00
Hamilton.....	408,419	60	680,698	10	6	15	9	9	5.4	34	20.4	29.4	5.00
Hamiltonban.....	577,994	50	1,155,988	17	8.5	8	4	9	4.5	34	17.0	50.0	3.00
Highland.....	245,107	60	408,511	11	6.6	10	6	9	5.4	30	18.0	36.6	1.50

TABLE I (CONCLUDED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF ADAMS COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Huntingdon	574,748	75	766,330	14	10.5	10	7.5	9	6.8	33	24.8	42.2	4.00
Latimore	463,474	60	772,457	11	6.6	10	6	9	5.4	30	18.0	36.6	2.00
Liberty	284,775	60	474,625	12	7.2	8	4.8	9	5.4	29	17.4	41.4	2.00
Littlestown Boro	737,725	60	1,229,541	17	10.2	12.5	7.5	9	5.4	38.5	23.1	44.2	4.00
McSherrystown Boro.	484,411	60	807,351	0	0	16	9.6	9	5.4	25	15		1.50
Menallen	643,049	60	1,071,748	18	10.8	15	9	9	5.4	42	25.2	42.8	1.00
Mount Joy	526,158	60	876,930	12	7.2	10	6	9	5.4	31	18.6	38.7	2.00
Mt. Pleasant	798,765	60	1,331,275	8	4.8	14.5	8.7	9	5.4	31.5	18.9	25.4	3.50
New Oxford Boro	459,791	67.5	681,172	24	16.2	13	8.8	9	6.1	46	31.1	52	4.00
Oxford	426,285	70	608,978	7	4.9	12	8.4	9	6.3	28	19.6	25.0	2.00
Reading	548,501	63	870,637	12	7.6	10	6.3	9	5.6	31	19.5	38.9	3.00
Straban	662,976	60	1,104,960	14	8.4	15	9	9	5.4	38	22.8	36.8	3.00
Tyrone	373,286	60	622,143	15	9	15	9	9	5.4	39	23.4	38.5	3.00
Union	598,616	60	997,693	10	6	10	6	9	5.4	29	17.4	34.5	2.50
Union, Ind	133,868	60	223,113	7	4.2	10	6	9	5.4	26	15.6	26.9	1.00
York Springs Boro	163,358	70	233,368	14	9.8	10	7	9	6.3	33	23.1	42.4	2.00
Totals	17,066,627	61.3	27,822,767										
Range				0–24	4.2–16.2	6–20	3.6–12		4.5–6.8	16–49	15-29.4	25–52.1	1.00–5.00
Median				14.81	8.16	14.48	7.5	9	5.51	34.5	20.0	39.16	3.19
Q^1				11.63	5.92	11.55	5.67	9	5.27	30.26	15.0	32.08	2.22
Q^3				17.98	10.83	17.41	9.13	9	5.90	38.5	22.65	45.77	3.94

TABLE II

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF BRADFORD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

L—Levied C—Corrected

1 Districts	2 Assessed valuations real estate and personal property	3 Rates of assessment in per cent	4 Corrected valuations	5 School tax rates in mills		6 Township or boro tax rates in mills		7 County tax rates in mills		8 Total tax rates in mills		9 Ratios of school tax rates to total rates Col. 5 ÷ Col. 8	10 Per capita tax in dollars
				L	C	L	C	L	C	L	C		
Alba Boro	$47,142	100	$47,142	18	18.0	7	7.0	22	22.0	47	47.0	38.3	3.00
Albany	246,545	100	246,545	25	25.0	20	20.0	22	22.0	67	67.0	37.3	3.00
Armenia	74,345	98	75,862	25	24.5	20	19.6	22	21.5	67	65.6	37.3	0
Asylum	279,750	100	279,750	13	13.0	12	12.0	22	22.0	47	47.0	27.7	4.00
Athens Boro	1,312,010	100	1,312,010	35	35.0	18	18.0	22	22.0	75	75.0	46.7	5.00
Athens	706,841	100	706,841	15	15.0	15	15.0	22	22.0	52	52.0	28.8	2.00
Barclay	12,460	100	12,460	20	20.0	20	20.0	22	22.0	62	62.0	32.3	2.00
Burlington Boro	50,305	78	64,494	10	7.8	7	5.4	22	17.2	39	30.4	25.6	1.00
Burlington	266,760	97	275,010	20	19.4	13	12.6	22	21.3	55	53.3	36.4	3.00
Canton Boro	668,399	75	891,199	35	26.3	17	12.7	22	16.5	74	55.5	47.3	5.00
Canton	494,070	100	494,070	20	20.0	18	18.0	22	22.0	60	60.0	33.3	5.00
Columbia	500,615	92	544,147	20	18.4	13	12.0	22	20.2	55	50.6	36.3	5.00
Doty Hill, Ind	35,425	92	38,505	20	18.4	15	13.8	22	20.2	57	52.4	35.1	1.00
Franklin	169,015	100	169,015	18	18.0	12	12.0	22	22.0	52	52.0	34.6	3.00
Granville	347,590	93	373,753	20	18.6	15	13.9	22	20.5	57	53.0	35.1	5.00
Herrick	264,837	100	264,837	18	18.0	15	15.0	22	22.0	55	55.0	32.7	3.00
LeRoysville Boro	96,355	100	96,355	23	23.0	13	13.0	22	22.0	58	58.0	39.6	5.00
LeRoy	265,270	100	265,270	14	14.0	12	12.0	22	22.0	48	48.0	29.2	5.00

TABLE II (CONTINUED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRCITS OF BRADFORD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Litchfield	290,105	97	299,077	18	17.5	15	14.5	22	21.3	55	53.3	32.8	3.00
Monroe Boro	109,480	64	171,063	30	19.2	17	10.9	22	14.1	69	44.2	43.5	5.00
Monroe	283,540	95	298,463	20	19	12	11.4	22	20.9	54	51.3	37.0	3.00
New Albany Boro	103,200	100	103,200	20	20	15	15.0	22	22.0	57	57.0	35.1	3.00
N. Towanda	144,640	100	144,640	23	23	8	8.0	22	22.0	53	53.0	43.4	3.00
Orwell	348,500	100	348,500	14	14.0	14	14.0	22	22.0	50	50.0	28.0	2.00
Overton	72,160	100	72,160	16	16.0	20	20.0	22	22.0	58	58.0	27.6	5.00
Overton, Ind	32,466	77	42,164	6	4.6	20	15.4	22	16.9	48	36.9	12.5	1.00
Pike	250,600	100	250,600	23	23.0	15	15.0	22	22.0	60	60.0	36.6	5.00
Ridgebury	373,225	100	373,225	12	12.0	10	10.0	22	22.0	44	44.0	27.2	1.00
Rome Boro	79,905	83	96,271	13	10.8	7	5.8	22	18.3	42	34.9	30.9	2.00
Rome	296,335	100	296,335	20	20.0	15	15.0	22	22.0	57	57.0	35.0	3.00
Sayre Boro	2,558,660	50	5,117,320	50	25.0	14	7.0	22	11.0	86	43.0	58.1	5.00
Sheshequin	467,880	100	467,880	15	15.0	15	15.0	22	22.0	52	52.0	28.8	5.00
Smithfield	568,250	100	568,250	18	18.0	14	14.0	22	22.0	54	54.0	33.3	5.00
South Creek	236,321	100	236,321	25	25.0	13	13.0	22	22.0	60	60.0	41.7	2.00
S. Waverly Boro	270,000	100	270,000	35	35.0	15	15.0	22	22.0	72	72.0	48.6	2.00
Springfield	524,435	90	582,706	14	12.6	10	9.0	22	19.8	46	41.4	30.4	1.00
Standing Stone	240,800	100	240,800	12	12.0	12	12.0	22	22.0	46	46.0	26.1	5.00
Stevens	152,450	100	152,450	12	12.0	15	15.0	22	22.0	49	49.0	24.5	4.00
Sylvania Boro	49,207	67	73,443	32	21.4	6	4.0	22	14.7	60	40.2	53.2	3.00
Terry	220,955	90	245,506	20	18.0	15	13.5	22	19.8	57	51.3	35.1	1.00

TABLE II (CONCLUDED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF BRADFORD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Towanda Boro	1,749,435	95	1,841,511	20	19.0	15	14.2	22	20.9	57	54.1	35.1	3.00
Towanda	280,060	100	280,060	15	15.0	15	15.0	22	22.0	52	52.0	28.8	3.00
Troy Boro	596,925	70	852,750	32	22.4	12	8.4	22	15.4	66	46.2	48.5	4.00
Troy	583,370	100	583,370	14	14.0	9	9.0	22	22.0	45	45.0	31.1	5.00
Tuscarora	294,516	100	294,516	16	16.0	20	20.0	22	22.0	58	58.0	27.6	5.00
Ulster, Ind	184,785	100	184,785	15	15.0	10	10.0	22	22.0	47	47.0	31.9	5.00
Ulster	207,470	95	218,389	15	14.2	10	9.5	22	20.9	47	44.6	31.9	5.00
Warren	383,465	100	383,465	16	16.0	15	15.0	22	22.0	53	53.0	30.2	2.00
Wells	334,070	100	334,070	17	17.0	15	15.0	22	22.0	54	54.0	31.5	2.00
Windham	312,565	100	312,565	14	14.0	10	10.0	22	22.0	46	46.0	30.5	3.00
W. Burlington	291,840	100	291,840	17	17.0	10	10.0	22	22.0	49	49.0	34.7	3.00
Wilmot	337,030	100	337,030	15	15.0	20	20.0	22	22.0	57	57.0	26.3	3.00
Wyalusing Boro	254,574	90	282,860	25	22.5	18	16.2	22	19.8	65	58.5	38.5	5.00
Wyalusing	429,130	100	429,130	18	18.0	15	15.0	22	22.0	55	55.0	32.7	5.00
Wysox	453,165	100	453,165	18	18.0	12	12.0	22	22.0	52	52.0	34.6	3.00
Totals	20,203,248	75.7	23,687,145										
Range				6–50	4.6–35	6-20	4–20		11–22	16–49	30.4–75	12.5–58.1	1.00–5.00
Median				19.14	18.1	15.36	13.8	22	22.0	54.81	53.04	34.53	3.37
Q^1				14.39	15.75	11.84	10.81	22	20.45	49.11	46.71	30.23	2.42
Q^3				26.25	21.88	18.15	17.42	22	22.0	60.25	59.01	38.22	5.00

TABLE III

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CHESTER COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

L—Levied C—Corrected

1 Districts	2 Assessed valuations real estate and personal property	3 Rates of assessment in per cent	4 Corrected valuations	5 School tax rates in mills		6 Township or boro tax rates in mills		7 County tax rates in mills		8 Total tax rates in mills		9 Ratios of school tax rates to total rates	10 Per capita tax in dollars
				L	C	L	C	L	C	L	C	Col. 5÷Col. 8	
Atglen Boro	$355,780	75	$474,373	15	11.2	12	9.0	4	3.0	31	23.2	48.3	4.00
Avondale Boro	489,445	75	652,593	14	10.5	8	6.0	4	3.0	26	19.5	53.8	5.00
Birmingham	427,450	80	534,313	15	12.0	7	5.6	4	3.2	26	20.8	57.7	5.00
Caln	1,055,475	55.5	1,901,757	14	7.8	8	4.4	4	2.2	26	14.4	54.1	5.00
Charlestown	612,220	48	1,275,458	13	6.2	10	4.8	4	1.9	27	12.9	48.1	5.00
Coatesville City	14,236,426	67	21,248,397	14	9.3	11.5	7.7	4	2.7	29.5	19.7	47.3	5.00
Downingtown Boro	3,110,755	45	6,912,788	18	8.1	14.5	6.5	4	1.8	36.5	16.4	49.4	5.00
E. Bradford	1,127,000	77	1,463,636	9	6.9	8	6.2	4	3.0	21	16.1	42.9	5.00
E. Brandywine	498,300	80	622,875	10	8.0	10	8.0	4	3.2	24	19.2	41.6	2.00
E. Caln	377,720	63	599,556	11	6.9	3.5	2.2	4	2.5	18.5	11.6	59.4	4.00
E. Coventry	657,402	75	876,536	18	13.5	8	6.0	4	3.0	30	22.5	55.5	5.00
E. Fallowfield	919,470	75	1,225,960	17	12.7	10	7.5	4	3.0	31	23.2	54.8	4.00
E. Goshen	894,883	70	1,278,404	9	6.3	10	7.0	4	2.8	23	16.1	39.1	0
E. Marlboro	1,757,400	75	2,343,200	15	11.2	6	4.5	4	3.0	25	18.7	60.0	5.00
E. Nantmeal	404,695	72	562,076	13	9.4	12	8.6	4	2.9	29	20.9	44.9	3.00
E. Nottingham	773,365	50	1,546,730	12	6.0	11	5.5	4	2.0	27	13.5	44.4	2.00
E. Pikeland	556,677	53	1,050,334	19	10.1	10	5.3	4	2.1	33	17.5	57.7	5.00

TABLE III (CONTINUED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CHESTER COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Easttown	4,278,015	50	8,556,030	14	7.0	8	4.0	4	2.0	26	13.0	53.8	5.00
E. Vincent	644,625	43	1,499,128	18	7.7	10	4.3	4	1.7	32	13.7	56.2	5.00
E. Whiteland	1,456,765	67	2,174,276	14	9.4	10	6.7	4	2.7	28	18.8	50.0	5.00
Elk	313,570	87	360,425	10	8.7	8	6.9	4	3.5	22	19.1	45.5	3.00
Elverson Boro	230,545	75	307,393	7	5.25	9	6.8	4	3.0	20	15.0	35.0	3.00
Franklin	478,040	75	637,387	8	6.0	12	9.0	4	3.0	24	18.0	33.3	4.00
Highland	548,670	75	731,560	12	9.0	10	7.5	4	3.0	26	19.5	46.2	3.00
Honey Brook Boro	503,525	64	786,758	10	6.4	4	2.6	4	2.6	18	11.6	55.4	5.00
Honey Brook Twp	802,161	68	1,179,649	11	7.5	9	6.1	4	2.7	24	16.3	45.8	5.00
Independent No. 1	480,738	70	543,911	8	5.6	6	4.2	4	2.8	18	12.6	44.4	2.50
Kennett	1,164,005	75	1,549,340	7.5	5.6	10	7.5	4	3.0	21.5	16.1	34.8	2.50
Kennett Square Boro	2,200,595	63	3,493,008	15	9.5	14	8.8	4	2.5	33	20.8	45.4	3.00
London Britain	379,300	65	583,538	8	5.2	10	6.5	4	2.6	22	14.3	36.4	3.00
Londonderry	383,900	75	511,867	12	9.0	10	7.5	4	3.0	26	19.5	46.2	3.00
Londond Grove	1,170,375	80	1,462,968	12	9.6	17	13.6	4	3.2	33	26.4	36.3	5.00
Lower Oxford	668,889	78	857,550	14	10.9	10	7.8	4	3.1	28	21.8	50.0	1.00
Malvern Boro	1,270,150	57	2,228,333	16	9.1	12	6.8	4	2.3	32	18.2	50.0	2.50
New Garden	1,564,775	75	2,086,367	9	6.7	12	9.0	4	3.0	25	18.7	36.0	3.00
Newlin	520,635	90	578,483	16	14.4	10	9.0	4	3.6	30	27.0	53.3	5.00
New London	470,085	80	587,606	10	8.0	12	9.6	4	3.2	26	20.8	38.4	1.50
North Coventry	1,128,940	53	2,130,075	18	9.5	12	6.4	4	2.1	34	18.0	52.9	5.00

TABLE III (CONTINUED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CHESTER COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Oxford Boro	2,200,665	68	3,236,272	14	9.5	11	7.5	4	2.7	29	19.7	48.3	3.00
Parkesburg Boro	1,052,930	60	1,754,883	18	10.8	18	10.8	4	2.4	40	24.0	45.0	5.00
Penn	463,674	80	579,593	8	6.4	10	8.0	4	3.2	22	17.6	36.4	3.00
Pennsbury	1,139,800	72	1,583,056	13	9.4	6	4.3	4	2.9	23	16.6	56.6	4.00
Phoenixville Boro	6,815,519	55	12,391,853	15	8.3	17	9.3	4	2.2	36	19.8	41.7	4.00
Pocopson	385,450	75	513,933	16	12.0	10	7.5	4	3.0	30	22.5	53.3	5.00
Sadsbury	608,754	75	811,672	14	10.5	10	7.5	4	3.0	28	21.0	50.0	3.00
Schuylkill	832,670	31	2,686,032	18	5.6	15	4.6	4	1.2	37	11.4	48.6	5.00
S. Coatesville Boro	3,993,025	62	6,440,363	8	5.0	9	5.6	4	2.4	21	13.0	38.1	1.00
S. Coventry	278,834	70	398,334	18	12.6	9	6.3	4	2.8	31	21.7	58.1	5.00
Spring City Boro	1,643,652	67	2,453,212	25	16.7	15	10.1	4	2.7	44	29.5	56.8	5.00
Thornbury	327,100	80	408,875	12	9.6	7.5	6.0	4	3.2	23.5	18.8	51.1	5.00
Tredyffrin	6,839,515	50	13,679,030	18	9.0	8	4.0	4	2.0	30	15.0	60.0	5.00
Union Ind. No. 3	279,075	80	323,844	8	6.4	10	8.0	4	3.2	22	17.6	36.4	2.00
Upper Oxford	617,655	72	857,854	8	5.8	10	7.2	4	2.9	22	15.9	36.4	3.00
Upper Uwchlan	475,762	77	617,873	15	11.5	10	7.7	4	3.1	29	22.3	51.7	2.00
Uwchlan	406,010	70	580,014	10	7.0	10	7.0	4	2.8	24	16.8	41.7	3.00
Valley	2,682,315	80	3,352,894	12	9.6	7	5.6	4	3.2	23	18.4	52.2	2.50
Wallace	453,300	80	566,625	10	8.0	10	8.0	4	3.2	24	19.2	41.7	2.50
Warwick	512,118	82	624,534	17	13.9	12	9.8	4	3.3	33	27.0	51.5	5.00
W. Bradford	742,940	75	990,587	13	9.7	10	7.5	4	3.0	27	20.2	48.1	4.00

TABLE III (CONCLUDED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CHESTER COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
W. Brandywine	447,515	90	497,239	12	10.8	12	10.8	4	3.6	28	25.2	42.8	5.00
W. Caln	531,421	68	781,501	15	10.2	10	6.8	4	2.7	29	19.7	51.7	2.00
West Chester Boro.	11,908,905	37	32,186,230	16	5.9	10	3.7	4	1.5	30	11.1	53.3	5.00
W. Fallowfield	572,685	73	784,500	14	10.2	10	7.3	4	2.9	28	20.4	50.0	2.00
W. Goshen	2,123,875	75	2,949,823	10	7.5	6	4.5	4	3.0	20	15.0	50.0	5.00
West Grove Boro	860,525	67	1,284,366	12	8.0	11.7	7.9	4	2.7	27.75	18.6	43.2	5.00
W. Marlboro	891,535	85	1,048,865	15	12.7	10	8.5	4	3.4	29	24.6	51.7	5.00
W. Nantmeal	537,487	77	698,035	10	7.7	10	7.7	4	3.0	24	18.4	41.7	3.00
W. Nottingham	335,095	65	515,531	13	8.4	13	8.4	4	2.6	30	19.4	43.3	1.00
W. Pikeland	444,650	60	741,083	9	5.4	10	6.0	4	2.4	23	13.8	39.1	4.00
W. Sadsbury	483,625	75	644,833	10	7.5	10	7.5	4	3.0	24	18.0	41.7	3.00
Westtown	682,499	67	1,018,655	12	8.0	12	8.0	4	2.7	28	18.7	42.8	5.00
W. Vincent	605,935	70	865,621	12	8.4	12	8.4	4	2.8	28	19.6	42.8	3.00
W. Whiteland	981,408	85	1,154,598	9	7.6	8	6.8	4	3.4	21	17.8	42.9	4.00
Willistown	2,428,550	40	6,071,375	12	4.8	9	3.6	4	1.6	25	10.0	48.0	3.50
Totals	105,479,239	57.4	183,508,222										
Range				7–25	4.8–16.7	3.5-18	2.2-13.6		1.2–3.6	18–44	10–29.5	33.3–60	0–5.00
Median				13.89	8.39	12.88	7.00	4	2.94	26.54	16.98	48.00	4.22
Q^1				10.76	5.16	8.41	5.31	4	2.38	22.98	13.49	41.83	3.08
Q^3				17.03	10.39	16.44	8.68	4	3.47	30.29	21.19	54.31	5.00

TABLE IV

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CLEARFIELD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

L—Levied C—Corrected

1 Districts	2 Assessed valuations real estate and personal property	3 Rates of assessment in per cent	4 Corrected valuations	5 School tax rates in mills		6 Township or boro tax rates in mills		7 County tax rates in mills		8 Total tax rates in mills		9 Ratios of school tax rates to total rates	10 Per capita tax in dollars
				L	C	L	C	L	C	L	C	Col. 5 ÷ Col. 8	
Beccaria	$599,073	50	$1,198,146	30	15.0	27	13.5	21.5	10.75	78.5	39.25	38.2	2.50
Bell	264,743	57	464,461	30	17.1	15	8.5	21.5	12.25	66.5	37.9	45.1	3.00
Bigler	487,383	72	676,921	40	28.8	14	10.1	21.5	15.5	75.5	54.4	52.9	5.00
Bloom	108,810	60	181,350	25	15.0	10	6.0	21.5	12.9	56.5	33.9	44.2	5.00
Boggs	262,346	40	655,865	29	11.6	25.5	10.2	21.5	8.6	76.0	30.4	38.1	2.50
Bradford	734,776	47	1,563,353	29	13.6	17	8.0	21.5	10.1	67.5	31.7	42.9	5.00
Brady	594,958	33	1,802,903	29	9.6	10	3.3	21.5	7.1	60.5	20.0	48.0	5.00
Brisbin Boro	49,531	35.5	139,526	35	12.4	15	5.3	21.5	7.6	71.5	25.3	48.9	5.00
Burnside Boro	98,254	47	209,050	35	16.4	20	9.4	21.5	10.1	76.5	35.9	45.7	5.00
Burnside Twp	332,283	100	332,283	32	32.0	20	20.0	21.5	21.5	73.5	73.5	43.5	2.50
Chester	252,755	41⅔	606,612	12	5.0	20	8.3	21.5	9.0	53.5	22.3	22.4	1.00
Chester Hill Boro	442,335	63	702,119	26	16.4	18	11.3	21.5	13.5	65.5	41.2	39.7	5.00
Clearfield Boro	3,610,560	30½	11,837,901	42	12.8	22.5	6.8	21.5	6.6	86.0	26.2	48.8	4.00
Coalport Boro	199,080	33	603,273	26	8.6	36	11.9	21.5	7.1	83.5	27.6	31.1	5.00
Cooper	528,711	50	1,057,422	59	29.5	21.5	10.75	21.5	10.75	102.0	51.0	57.8	0
Covington	131,868	50	263,736	13.5	6.75	17	8.50	21.5	10.75	52.0	26.0	25.2	1.00
Curwenville Boro	607,150	44	1,379,886	35	15.4	32	14.1	21.5	9.5	88.5	39.0	39.5	5.00

TABLE IV (CONTINUED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CLEARFIELD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Decatur	477,001	60	795,002	35	21.0	18	10.8	21.5	12.9	74.5	44.7	46.9	4.00
DuBois City	4,605,265	28	16,447,375	39	10.9	18	5.0	21.5	6.0	78.5	22.0	49.7	5.00
Ferguson	199,261	90	221,401	16	14.4	16	14.4	21.5	19.3	53.5	48.1	29.9	5.00
Girard	143,894	33	436,042	15	4.9	20	6.6	21.5	7.1	56.5	18.6	26.5	2.50
Glen Hope Boro	34,040	33	103,152	30	9.9	20	6.6	21.5	7.1	71.5	23.6	41.9	3.00
Goshen	124,751	75	166,335	14.5	10.9	20	15.0	21.5	16.1	56.0	42.0	25.9	5.00
Graham	92,080	62	148,516	15	9.3	25	15.5	21.5	13.3	61.5	38.1	24.4	2.00
Grampian Boro	89,070	48	185,563	35	16.8	21	10.1	21.5	10.3	77.5	37.2	45.1	5.00
Greenwood	121,715	60	202,858	25	15.0	14	8.4	21.5	12.9	60.5	36.3	41.3	5.00
Gulich	294,272	50	588,544	35	17.5	8	4.0	21.5	10.7	64.5	32.2	54.3	5.00
Houtzdale Boro	297,600	30	992,000	35	10.5	24	7.2	21.5	6.4	80.5	24.1	43.5	5.00
Huston	550,758	52	1,059,150	27	14.0	12	6.2	21.5	11.2	60.5	31.4	44.6	4.00
Irvona Boro	201,665	33	611,106	28	9.2	20.5	6.8	21.5	7.1	70.0	23.1	40.0	5.00
Jordon	253,493	70	362,133	16	11.2	15	10.5	21.5	15.1	52.5	36.8	30.5	4.00
Karthaus	246,345	77	319,929	16	12.3	10	7.7	21.5	16.6	47.5	36.6	33.7	3.00
Knox	213,512	70	305,017	35	24.5	22	15.4	21.5	15.0	78.5	54.9	44.6	2.50
Lawrence	806,043	60	1,343,405	35	21.0	22	13.2	21.5	12.9	78.5	47.1	44.6	0
Lumber City Boro	83,125	50	166,250	28	14.0	18	9.0	21.5	10.7	67.5	33.7	41.5	1.50
Mahaffey Boro	171,745	80	214,681	21	16.8	23	18.4	21.5	17.2	65.5	52.4	32.0	5.00
Morris	396,796	40	991,990	60	24.0	13	5.2	21.5	8.6	94.5	37.8	63.4	0
Newburg Boro	33,280	60	55,467	30	18.0	10	6.0	21.5	12.9	61.5	36.9	48.7	4.00
New Washington Boro.	23,965	50	47,930	32	16.0	10	5.0	21.5	10.7	63.5	31.7	50.4	1.00

TABLE IV (CONCLUDED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CLEARFIELD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Osceola Mills Boro.	496,645	60	827,742	30	18.0	27	16.2	21.5	12.9	78.5	47.1	38.2	3.00
Penn	189,155	50	378,310	25	12.5	12	6.0	21.5	10.7	58.5	29.2	42.7	5.00
Pike	421,902	44	958,868	35	15.4	29.5	13.0	21.5	9.4	86.0	37.8	40.7	1.00
Ramey Boro	128,461	45	285,469	45	20.2	22	9.9	21.5	9.7	88.5	39.8	50.8	5.00
Sandy	767,228	34	2,256,553	45	15.3	22	7.5	21.5	7.3	88.5	30.1	50.8	5.00
Troutville Boro.	56,555	57	99,219	28	16.0	15	8.5	21.5	12.3	64.5	36.8	40.3	5.00
Union	117,916	33	357,321	23	7.6	10	3.3	21.5	7.1	54.5	18.0	42.2	3.00
Wallaceton Boro.	65,900	33	199,697	25	8.2	7	2.3	21.5	7.1	53.5	17.6	46.5	0
Westover Boro.	117,673	60	196,122	26	15.6	5	3.0	21.5	12.9	52.5	31.5	49.5	2.50
Woodward	184,218	33	558,236	35	11.6	15	4.9	21.5	7.1	71.5	23.6	48.9	3.00
Totals	21,309,945	38.3	55,556,190										
Range				12–60	4.9–29.5	5–36	2.3–20		6–21.5	51.5–102	17.6–73.5	22.4–63.4	0–5.00
Median				30.25	15.14	19.30	8.85	21.5	10.55	69.62	33.96	43.39	4.25
Q^1				22.65	10.8	14.01	6.3		7.92	60.19	27.7	37.22	2.69
Q^3				36.71	18.75	25.11	12.59		12.75	77.83	39.06	47.76	5.00

TABLE V

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CRAWFORD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

L—Levied C—Corrected

1 Districts	2 Assessed valuations real estate and personal property	3 Rates of assessment in per cent	4 Corrected valuations	5 School tax rates in mills		6 Township or boro tax rates in mills		7 County tax rates in mills		8 Total tax rates in mills		9 Ratios of school tax rates to total rates Col. 5 ÷ Col. 8	10 Per capita tax in dollars
				L	C	L	C	L	C	L	C		
Athens	$355,280	67	$530,269	10	6.7	10	6.7	12	8.0	32	21.4	31.3	3.00
Beaver	491,427	75	655,236	12	9.0	12	9.0	12	9.0	36	27.0	33.3	2.00
Bloomfield	656,950	95	691,526	23	21.9	10	9.5	12	11.4	45	42.8	51.1	5.00
Blooming Valley Boro.	79,500	65	122,308	16	10.4	13	8.5	12	7.8	41	26.7	39.0	5.00
Cambridge	435,943	83	525,233	12	10.0	10	8.3	12	10.0	34	28.3	35.3	1.00
Cambridge Springs Boro	891,320	40	2,228,300	23	9.2	20.5	8.2	12	4.8	55.5	22.2	41.4	2.00
Centerville Boro	136,985	67	204,455	20	13.4	10	6.7	12	8.0	42	28.1	47.6	2.00
Cochranton Boro	307,920	53	580,981	18	9.5	9	4.8	12	6.4	39	20.7	46.1	5.00
Conneaut	620,780	63	985,365	20	12.6	20	12.6	12	7.6	52	32.8	38.4	2.50
Conneaut Lake Boro.	259,985	50	519,970	15	7.5	15	7.5	12	6.0	42	21.0	35.7	5.00
Conneautville Boro	378,955	67	565,604	20	13.4	12	8.0	12	8.0	44	29.4	45.5	5.00
Cussewago	581,855	73	797,062	12	8.8	15	10.9	12	8.8	39	28.5	30.6	5.00
E. Fairfield	216,745	65	333,454	15	9.8	15	9.8	12	7.8	42	27.4	35.7	5.00
E. Fallowfield	359,195	70	513,136	27	18.9	18	12.6	12	8.4	57	39.9	47.4	5.00
E. Mead	349,065	100	349,065	25	25.0	15	15.0	12	12.0	52	52.0	48.1	1.00
Fairfield	289,323	65	445,112	15	9.8	15	9.8	12	7.8	42	27.4	35.7	1.00

TABLE V (CONTINUED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CRAWFORD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Geneva Boro	53,780	50	107,560	11	5.5	14	7.0	12	6.0	37	18.5	29.7	2.50
Greenwood	454,120	75	605,493	9	6.8	15	11.2	12	9.0	36	27.0	25.1	5.00
Hayfield Boro	599,195	75	798,927	14	10.5	16	12.0	12	9.0	42	31.5	33.3	2.00
Hydetown Boro	101,710	71	143,254	15	10.7	15	10.7	12	8.5	42	29.9	35.7	3.00
Linesville Boro	450,315	48	938,156	13	6.2	14	6.7	12	5.8	39	18.7	33.2	5.00
Meadville City	9,279,000	30	30,930,000	23	6.9	19.5	5.9	12	3.6	54.5	16.4	42.1	5.00
N. Shenango	391,155	70	558,793	25	17.5	15	10.5	12	8.4	52	36 4	48.1	2.00
Oil Creek	591,450	69.5	851,007	12	8.3	20	13.9	12	8.3	44	30.6	27.1	3.00
Penn Line, Ind	58,410	50	116,820	15	7.5	20	10.0	12	6.0	47	23.5	31.9	1.00
Pine	211,170	60	351,950	20	12.0	12	7.2	12	7.2	44	26.4	45.4	0
Putnam, Ind	36,222	77	47,042	18	13.9	15	11.5	12	9.2	45	34.6	40.1	5.00
Randolph	598,435	75	797,913	25	18.7	10	7.5	12	9.0	47	35.2	53.1	5.00
Richmond	492,515	70	703,593	15	10.5	15	10.5	12	8.4	42	29.4	35.7	3.00
Rockdale	454,325	69	658,442	20	13.8	15	10.3	12	8.3	47	32.4	42.5	4.00
Rome	439,735	75	586,313	12	9.0	15	11.2	12	9.0	39	29.2	30.8	4.00
Sadsbury	943,220	50	1,886,440	6	3.0	14	7.0	12	6.0	32	16.0	18.8	3.00
Saegertown Boro	272,080	50	544,160	20	10.0	20	10.0	12	6.0	52	26.0	38.5	5.00
S. Shenango	431,970	75	575,960	15	11.2	15	11.2	12	9.0	42	31.4	35.7	5.00
Sparta	463,645	70	662,350	24	16.8	15	10.5	12	8.4	51	35.7	47.0	5.00
Spartansburg Boro	224,925	62	362,782	21	13.0	15	9.3	12	7.4	48	29.7	43.7	5.00
Spring	681,600	67	1,017,313	12	8.0	15	10.0	12	8.0	39	26.1	30.7	1.00
Springboro Boro	241,315	75	321,753	20	15.0	16	12.0	12	9.0	48	36.0	41.7	5.00

TABLE V (CONCLUDED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF CRAWFORD COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Steuben	268,300	80	335,375	15	12.0	15	12.0	12	9.6	42	33.6	35.7	1.00
Summerhill	445,780	67	665,343	13	8.7	20	13.4	12	8.0	45	30.1	28.9	4.00
Summit	794,190	38	2,089,974	11	4.2	14	5.3	12	4.6	37	14.1	29.8	2.00
Titusville City	5,952,340	50	11,904,680	15	7.5	16	8.0	12	6.0	43	21.5	34.9	5.00
Townville	80,960	65	124,554	14	9.1	10	6.5	12	7.8	36	23.4	38.8	5.00
Troy	368,525	82	449,421	18	14.8	12	9.8	12	9.8	42	34.4	43.8	1.00
Union, Ind	43,125	75	57,500	15	11.2	15	11.2	12	9.0	42	31.4	35.7	1.00
Union	225,285	75	300,380	14	10.5	15	11.2	12	9.0	41	30.7	34.2	3.00
Venango Boro	87,410	52	168,096	18	9.4	11	5.7	12	6.2	41	21.3	44.1	5.00
Venango	211,950	53	399,906	24	12.7	15	7.9	12	6.4	51	27.0	47.0	3.00
Vernon	1,150,000	72	1,597,222	16	11.5	15	10.8	12	8.6	43	30.9	37.2	3.00
Wayne	431,325	67	643,769	12	8.0	15	10.0	12	8.0	39	26.0	30.8	1.00
W. Fallowfield	244,828	53	461,940	18	9.5	12	6.4	12	6.4	42	22.3	42.7	2.50
W. Mead	852,865	68	1,254,213	20	13.6	10	6.8	12	8.2	42	28.6	47.6	5.00
W. Shenango	157,705	55	286,736	10	5.5	10	5.5	12	6.6	32	17.6	31.2	5.00
Woodcock Boro	32,400	67	48,358	15	10.0	10	6.7	12	8.0	37	24.7	40.5	3.00
Woodcock	581,053	53	1,096,326	15	7.9	15	7.9	12	6.4	42	22.2	35.6	2.00
Totals	35,809,561	46.1	75,496,890										
Range				6–27	4.2–25	9-20.5	4.8-13.9		3.6–12	32–57	14.1–52	18.8–53.1	0–5.00
Median				17.29	10.34	15.52	9.56	12	8.26	43.83	27.16	37.96	3.42
Q^1				13.36	7.44	12.65	7.18	12	6.81	38.59	22.58	32.87	2.27
Q^3				22.36	13.46	18.17	12.34	12	9.1	48.42	33.08	44.12	5.00

TABLE VI

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF GREENE COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

L—Levied C—Corrected

1 Districts	2 Assessed valuations real estate and personal property	3 Rates of assessment in per cent	4 Corrected valuations	5 School tax rates in mills		6 Township or boro tax rates in mills		7 County tax rates in mills		8 Total tax rates in mills		9 Ratios of school tax rates to total rates	10 Per capita tax in dollars
				L	C	L	C	L	C	L	C	Col. 5 ÷ Col. 8	
Aleppo	$950,402	50	$1,900,804	9	4.5	10	5	8	4.0	27	13.5	33.3	1.00
Carmichaels Boro.	285,766	33	865,958	20	6.6	20	6.6	8	2.6	48	15.8	41.8	3.00
Center	2,653,754	45	5,897,231	8	3.6	10	4.5	8	3.6	26	11.7	30.8	2.50
Clarksville Boro.	129,715	33	393,076	20	6.6	13	4.3	8	2.6	41	13.5	48.8	5.00
Cumberland	7,599,062	39	19,484,774	17	6.6	10	3.9	8	3.1	35	13.6	48.5	3.00
Dunkard	5,540,234	50	11,080,468	12	6.0	9	4.5	8	4.0	29	14.5	41.4	1.00
Franklin	3,910,123	52	7,519,467	9	4.7	10	5.2	8	4.1	27	14.0	33.6	1.00
Gilmore	989,148	53	1,866,317	6	3.2	6	3.2	8	4.2	20	10.6	30.2	1.00
Graysville Boro.	228,122	50	456,244	10	5.0	14	7.0	8	4.0	32	16.0	31.2	5.00
Greene	3,355,055	75	4,473,407	2	1.5	5	3.7	8	6.0	15	11.2	13.4	1.00
Greensboro Boro.	248,625	50	497,250	23	11.5	15	7.5	8	4.0	46	23.0	50.0	5.00
Jackson	1,098,716	50	2,197,432	6	3.0	10	5.0	8	4.0	24	12.0	25.0	1.00
Jefferson Boro	262,418	67	391,669	12	8.0	17	11.0	8	5.0	37	24.0	33.3	2.50
Jefferson	4,045,470	50	8,090,940	10	5.0	10	5.0	8	4.0	28	14.0	35.7	2.00
Monongahela	3,852,052	44	8,754,664	16	7.0	10	4.4	8	3.5	34	14.9	47.0	3.50
Morgan	4,515,003	83	5,439,763	5	4.1	10	8.3	8	6.6	23	19.0	21.6	2.25
Morris	1,921,480	50	3,842,960	9	4.5	10	5.0	8	4.0	27	13.5	33.3	2.50

TABLE VI (CONCLUDED)

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF GREENE COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

1 Districts	2	3	4	5		6		7		8		9	10
Mt. Morris Boro	221,790	50	443,580	25	12.5	15	7.5	8	4.0	48	24.0	52.1	1.00
New Freeport Boro	345,478	63	548,379	10	6.3	6.5	4.1	8	5.0	24.5	15.4	40.9	2.50
Perry	2,766,476	50	5,532,952	6	3.0	9	4.5	8	4.0	23	11.5	26.1	1.00
Rices' Landing Boro	384,643	66	582,729	19	12.5	13	8.5	8	5.3	40	26.3	47.5	1.00
Richill	1,919,180	57	3,366,982	10	5.7	10	5.7	8	4.6	28	16.0	35.6	2.00
Springhill	716,617	67	1,069,578	12	8.0	10	6.7	8	5.3	30	20.0	40.0	2.00
Washington	2,138,302	67	3,191,496	5	3.3	10	6.7	8	5.3	23	15.3	21.6	1.00
Wayne	2,974,451	53	5,612,172	9	4.8	10	5.3	8	4.2	27	14.3	33.6	2.00
Waynesburg Boro	4,142,033	50	8,284,066	24	12.0	18	9.0	8	4.0	50	25.0	48.0	2.50
Whiteley	2,484,578	40	6,211,445	2	.8	4	1.6	8	3.2	14	5.6	14.3	1.00
Totals	59,678,693	50.6	117,995,803										
Range				2–25	.8–12.5	4–20	1.6–11		2.6–6.6	14–50	10.6–26.3	13.4–52.1	1.00–5.00
Median				10.55	5.5	13.75	5.5		4.53	28.24	14.5	37.5	2.42
Q^1				5.19	3.95	10.37	4.49		4.05	23.39	13.29	30.75	1.31
Q^3				18.06	6.82	16.62	6.75		4.94	38.5	16.62	44.72	2.93

TABLE VII

ANALYSIS OF LOCAL TAX RATES IN THE SCHOOL DISTRICTS OF PIKE COUNTY, PENNSYLVANIA, FOR THE YEAR 1929-1930

L—Levied C—Corrected

1 Districts	2 Assessed valuations real estate and personal property	3 Rates of assessment in per cent	4 Corrected valuations	5 School tax rates in mills		6 Township or boro tax rates in mills		7 County tax rates in mills		8 Total tax rates in mills		9 Ratios of school tax rates to total rates	10 Per capita tax in dollars
				L	C	L	C	L	C	L	C	Col. 5÷Col. 8	
Blooming Grove	$422,343	100	$422,343	5	5.0	10	10.0	8	8.0	23	23.0	21.7	2.00
Delaware	718,324	100	718,324	13	13.0	10	10.0	8	8.0	31	31.0	41.9	1.00
Dingman	412,388	100	412,388	10	10.0	10	10.0	8	8.0	28	28.0	35.7	0
Greene	599,471	100	599,471	14	14.0	15	15.0	8	8.0	37	37.0	37.8	2.00
Lackawaxen	710,258	100	710,258	15	15.0	15	15.0	8	8.0	38	38.0	39.7	2.00
Lehman	684,782	100	684,782	13	13.0	10	10.0	8	8.0	31	31.0	41.9	3.00
Matamoras Boro	1,212,290	100	1,212,290	19	19.0	10	10.0	8	8.0	37	37.0	51.3	2.00
Milford, Ind	1,885,070	100	1,885,070	9	9.0	6	6.0	8	8.0	23	23.0	39.1	5.00
Palmyra	496,500	78	636,538	10	7.8	8	6.2	8	6.2	26	20.2	38.6	2.00
Porter	337,601	100	337,601	6	6.0	10	10.0	8	8.0	24	24.0	25.0	
Sholola	453,048	100	453,048	10	10.0	15	15.0	8	8.0	33	33.0	30.3	1.00
Westfall	290,460	100	290,460	10	10.0	10	10.0	8	8.0	28	28.0	35.7	4.00
Totals	8,222,535	98.3	8,362,573										
Range				5–19	5–19	6–15	6–15		6.2–8	23–38	20.2–38	21.7–41.9	0–5.00
Median				13.89	11.66	14	12.85		8.0	29.9	30.0	35.71	2.20
Q^1				10.76	8.75	11	10.71		8.0	25.0	25.0	31.42	1.25
Q^3				17.03	14.16	17	15.00		8.0	35.0	35.0	40.00	2.49

QUESTIONNAIRE

To Chester County Non-Resident High School Pupils:

We are attempting to determine the cost of transportation of non-resident high school pupils in Chester County. In order to get the facts, it is necessary to find out just what such transportation is costing your parents at the present time.

Will you please give the information requested below and return the form to the Principal as soon as possible.

Pupil's name.....

District in which pupil resides.....

High School attended.....

How far do you live from the school you attend.....

Draw a line *under* the type of transportation you use

1. Automobile	3. Trolley	5. Bicycle
2. Train	4. Wagon	6. Walk

What is the total amount which your parents pay per week for such transportation (exclusive of Nos. 5 and 6).....
(Count 10 cents per mile where an automobile is used by one person. Where more than one person travels to school in the automobile, divide the cost thus calculated by the number of persons transported.)

Do you ride in some one else's car.....

If so, what do you pay per week for this service.....

Do you board in town in order to be able to go to high school

.....

If such is the case, what do you pay per week.....

Special remarks:

INDEX

Ability, definition of, 71-73; Clark's formula for, 74-78; of selected counties, 81-92.

Administration, costs of, 174.

Assessments, basis for in Pennsylvania, 182; property assessed in Pennsylvania, 182; duties of Maryland supervisors of, 183; property assessed in Maryland, 184-185; weaknesses of in Pennsylvania, 188; ratios of, 188.

Assistant county superintendents, provision for, 40; powers and duties of, 40; basis of division of duties, 158; training of, 167; salaries of, 171.

Attendance, legal provisions for high school, 64-67.

Boards of education, county, size of, 50; appointment and terms of, 50; powers and duties of, 51.

Boards of school directors, district, number and election of, 41; powers and duties of, 42-44; salaries of secretaries and treasurers, 213, 214.

Borrowing capacity of counties and districts, 58.

Budgets, requirements for in Maryland, 56; in Pennsylvania, 214.

Characteristics, general, of counties, 13-20.

Constitutional basis of education in Pennsylvania, 31.

Counties chosen for study, 6.

County, development of in Pennsylvania, 37.

County unit, early agitation for, 1; classification of states on basis of, 2; Blanton's classification of Pennsylvania and Maryland, 5.

County school officer, evolution of, 155, 156.

County superintendent, powers and duties of in Pennsylvania, 38-40; in Maryland, 52, 53; supervisory functions of, 157, 158; training of, 165, 167; qualifications for in Pennsylvania, 169; salaries of, 171.

Criteria, 7.

Districts, classification of in Pennsylvania, 41; purposes of in Maryland, 54.

District trustees, powers and duties of in Maryland, 54.

District superintendent, 61.

Economies of county unit plan in Pennsylvania, 216.

Effort, definition of, 94.

Equalization fund, 104, 108.

Expenditures, major distribution of, 114; details for current expense, 117-121; for general control, 117, 120.

High schools, types of, 63, 64; number of elementary school graduates entering, 208.

Joint schools, 44, 45.

Maryland organization, development of, 46, 47; excellence of system of financing, 199.

Methods of procedure, 8.

Minimum program, need for in Pennsylvania, 108.

Need, definition of, 106; measurements of, 108, 109.

One-teacher schools, consolidation of, 204-206; definition of, 206; progress in elimination of, 203; weaknesses of, 203, 204.

Pennsylvania organization, 31.

Purpose of study, 5, 6.

School support, source of, 180, 181.

Scope of study, 6.

Selection of counties, 6.

Sources of data, 9.

State Board of Education, appointment, powers and duties of in Maryland, 48, 49.

State Council of Education, powers and duties of, 35-37.

State Department of Education, in Pennsylvania, 33-35; in Maryland, 47.

State, education a function of, 30.

State Superintendent, in Pennsylvania; 33-35, in Maryland, 49.

State Surveys, 3.

State Tax Commission, 184.

Supervision, legal provisions for, 60-62; availability of, 158-165; costs of, 174-177.

Supervisors, educational qualifications for, 165.

Tax collectors, 214.

Taxes, analysis of data for, 189; general property, 186; levy of in Pennsylvania, 54, 55; in Maryland, 56, 57; per capita, 56; rates should Pennsylvania adopt county unit plan, 218; state in Maryland, 185, 187.

Transportation, causes of variations in costs, 137; in Chester County, Pennsylvania, 149-152; influences of density upon, 138; influence of large district, 144; legal provisions for, 59-60; policy of Maryland, 145-148.

Tuition, non-resident high school, 121; state aid for, 124.

Union districts, 44.